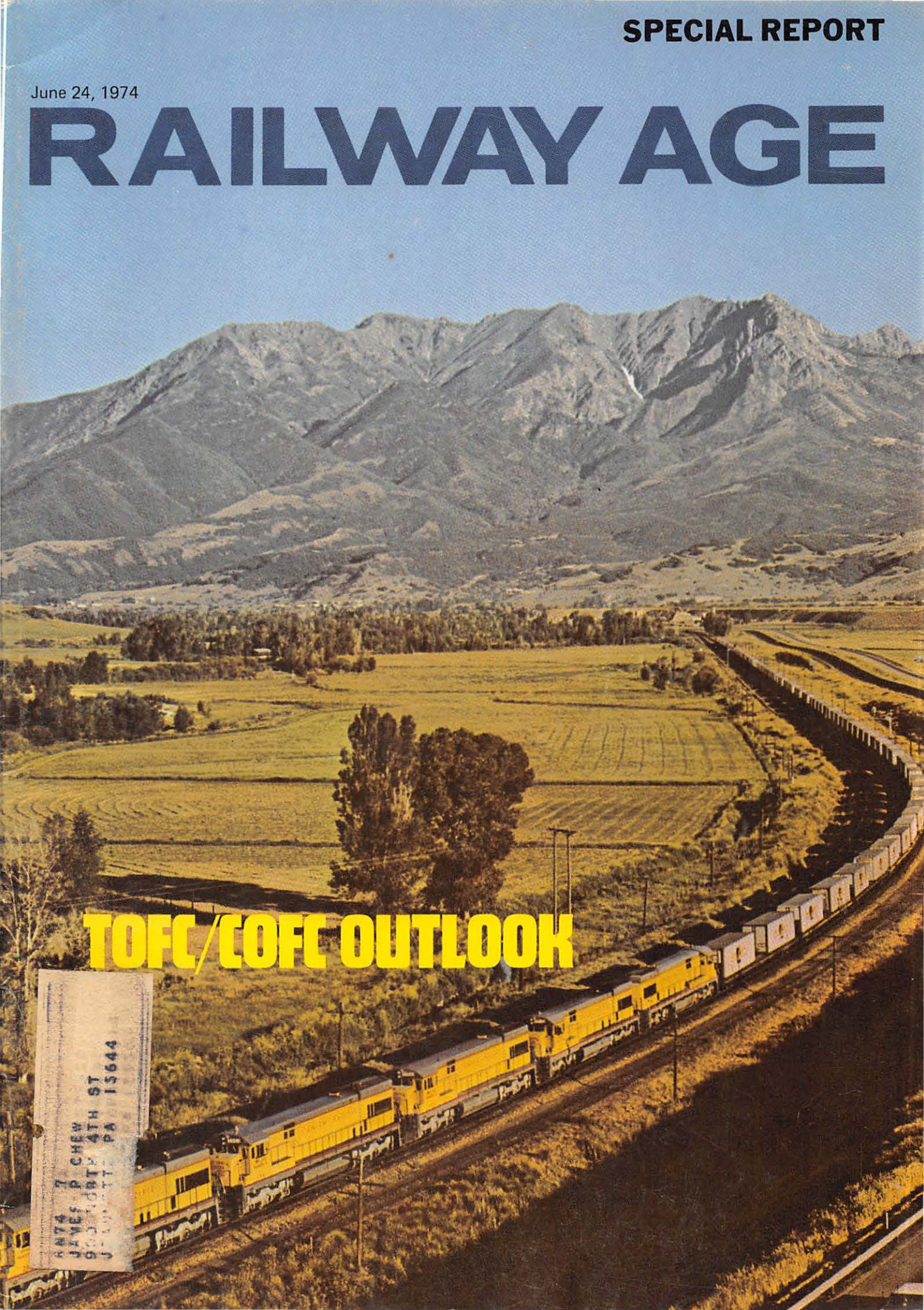
SPECIAL REPORT

June 24, 1974

RAILWAY AGE

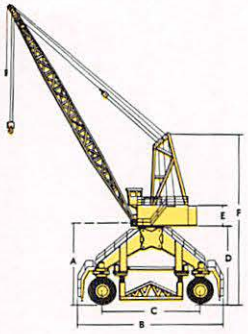


TOFC/COFC OUTLOOK

JN74 7
JAMES P CHEW
9[illegible] 4TH ST
J[illegible] PA 15644

GC-500 MOBILE GANTRY CRANE

Four-wheel drive on rubber tires, operates in tight places with 90° steering. Cab is insulated from weather, sound and vibration transfer; operator faces his work at all times. Hand operated rheostat controls for swing, boom and hook. Finger-tip switches for steering and outrigger functions. (Variety of boom lengths, from 60 ft. to 120 ft.)



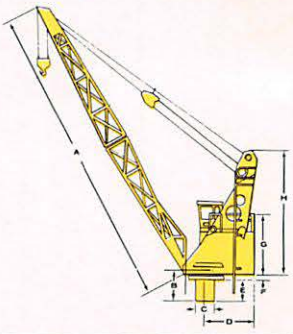
A	B	C	D	E	F
32'6"	55'2"	40'6"	31'7"	10'0"	84'0"
9906 mm	16815 mm	12344 mm	9627 mm	3048 mm	25603 mm

SPECIFICATIONS

Performance	
D.C. Hoist (Main & Aux.)	Line Speed (Avg.)
Loaded	150 FPM 45,72 m/min
Empty	150 FPM 45,72 m/min
	Hook Speed (Avg.) (Double Reeving)
Loaded	50 FPM-15,24 m/min-6 Line
	75 FPM-22,86 m/min-4 Line
	150 FPM-45,72 m/min-2 Line
Empty	50 FPM-15,24 m/min-6 Line
	75 FPM-22,86 m/min-4 Line
	150 FPM-45,72 m/min-2 Line
Swing Speed—Loaded	0 to 1 RPM
Luffing Speed Max. to Min. Reach	60 Sec.

PC-120 LETRO-CRANE

You can literally "inch" big loads safely into position with the infinite precision control of the electric gear motors. Simultaneous hoisting, lowering, swinging and luffing speeds up your operations. All electrical and mechanical components, perfectly matched, are built by Marathon LeTourneau, giving you a single source of responsibility.



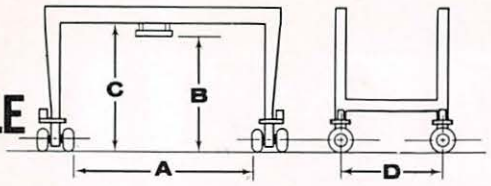
A	B	C	D
60'0"	4'0"	3'4"	10'0"
18288 mm	1218 mm	1016 mm	3048 mm

E	F	G	H
3'0"	6"	12'8"	25'4"
914 mm	152 mm	3861 mm	7722 mm

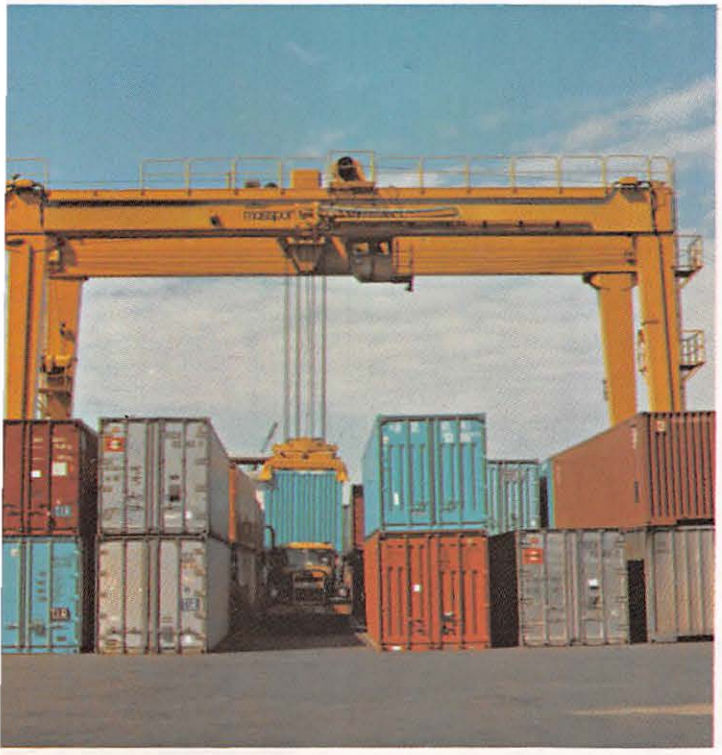
SPECIFICATIONS

Performance	
Loaded and Empty	Line Speed (Avg.)
Low Speed	50 FPM 15,24 m/min
High Speed	100 FPM 30,48 m/min
(With Optional D. C. Hoist)	
Loaded	0—150 FPM 0-45,72 m/min
Empty	0—180 FPM 0-54,86 m/min
	Swing Speed
Right or Left	.4 R.P.M.
(Optional D.C. Swing Speed)	0-1.5 R.P.M.
	Luffing Speed
Maximum to Minimum Reach	120 Sec.

SHU-SERIES STRADDLE HOIST



Machine Series	A	B	C	D
#1	41'0"	30'0"	34'0"	23'0"
#2	51'0"	30'0"	34'0"	23'0"
#3	51'0"	39'0"	43'0"	23'0"
#4	61'0"	30'0"	34'0"	23'0"
#5	61'0"	39'0"	43'0"	23'0"
#6	71'0"	30'0"	34'0"	23'0"
#7	71'0"	39'0"	43'0"	23'0"



Runs circles around cranes and yard trucks. Loads. Unloads. Transports. Virtually eliminates multiple handling by cranes, yard trucks, switch engines and train crews. Handles all sizes of piggyback trailers and containers with loads up to 100,000 lbs. and other heavy lifts to 250,000 lbs. Can be custom designed for special needs and yard conditions.

SPECIFICATIONS

Note: The SHU-Series is manufactured in seven basic models. These are designated by the numbers 1 through 7. Other units would be considered on a "Custom" basis.

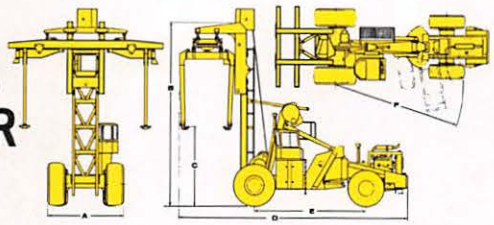
Performance Data:

Total Load, Capacity	100,000 lbs.
Capacity Per Hoist (2 required)	50,000 lbs.
Travel Speed—Infinite Range	0-440 FPM
Steering	Omni-Sync
Lifting Speed—Rated Load	25 FPM
Lifting Speed—Empty	28 FPM
Trolley Speed	45 FPM

Power Source:

G.M. 6V-71 engine with DC Generator and AC Generator supplying power to all functions. Engine shall be equipped with a GM mechanical variable speed governor adjusted for a constant speed of 2150 RPM. The Electrical System is 24 volts, cooling system capacity 39 gallons, and fuel tank capacity 108 gallons.

2682 LETRO-PORTER



A	B	C	D	E	F
14'7" 4445 mm	34'11" 10643 mm	14'4" 4369 mm	44'6" 13564 mm	21'6" 6553 mm	25'0" 7620 mm

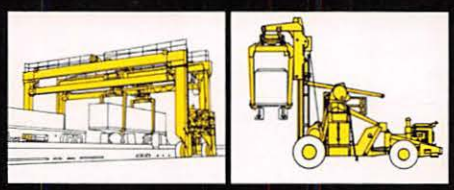
Available in four other models and capacities.

Side shift—tow unit can shift to either side of center without forward or reverse movement—makes for quick and easy lining up and spotting the trailer on flat car. **Pile slope**—either end of trailer can be lifted slightly so it can be "leveled" even on uneven terrain—reducing possibility of cargo damage and eliminating tire damage. **Vertical lift**—lifts and transfers trailers in a vertical position, unlike other machines which must tilt trailer back to move it, which is a common cause of freight damage.

SPECIFICATIONS

	U.S.	Metric
Operating Capacity		
Load Capacity at 48" Load Center	90,000 lbs.	40815 kg
Weight		
Operating	148,000 lbs.	67118 kg
Performance		
Lifting Speed (Rated Load)	28 FPM	8,53 m/min
Lowering Speed (Rated Load)	38 FPM	11,58 m/min
Turning Radius		
Outside Rear Tire	25'—0"	7620 mm
Travel Speed		
Forward & Reverse	0-9 MPH	0-14,5 km/h

Announcing another Big Difference from Marathon!



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Inside

LUTHER S. MILLER

20 QUESTIONS, 19 ANSWERS

It used to be said that one way to avoid an argument in railroad circles was to steer clear of politics, religion and piggyback. That is no longer entirely true. Most railroad men, faced with the choice of liking it or leaving it, have learned to like piggyback. There is no question about it: this marriage of rail and highway carriage is here to stay. But other questions abound.

How profitable *is* piggyback, anyway? Does it have any real chance of making substantial inroads into traffic now handled by private trucks? Where are the most promising intermodal markets? Are TOFC/COFC rates out of line? Do premium prices always produce premium service? Are railroads investing enough time and money to expand and promote the enterprise? What effect has the energy crisis had on loadings? Will we see more high-speed dedicated TOFC/COFC trains? If so, where—and when? How is landbridge doing? Minibridge? Does containerization have a domestic future, or is it strictly a foreign affair? Where do freight forwarders fit in? What kind of service improvements would encourage greater forwarder participation? Is the equipment problem easing? Can equipment-demand forecasting techniques be improved? How does car utilization compare with that of conventional freight service? What is happening in equipment leasing? What technological advances are on the drawing boards? What's new in loading/unloading?

Answers to Nos. 2 through 20 of these questions will be found, either direct or implied, in Senior Editor Gus Welty's mid-year report on TOFC/COFC (p. 22). As for No. 1—profitability—see us next year. Or the year after. They're still working on the arithmetic.

MR. O'NEAL'S DISSENT

The lead item on p. 8 of this issue is short, and most significant. It says, simply enough, that the railroads are getting a rate increase that will yield well in excess of $1 billion a year, the additional revenues to be applied to capital improvements and catching up on deferred maintenance generally. What may not be so simple is meeting the conditions which the Commission attached to its June 3 order. In a dissenting opinion, Commissioner Daniel O'Neal said he quite frankly doubted the railroads *would* meet these conditions.

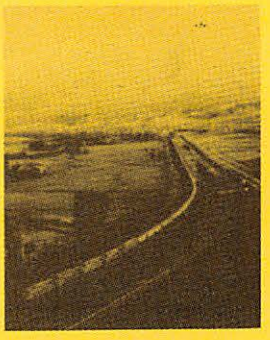
Said Mr. O'Neal: "The June 3 order puts the cart before the horse. It authorized the increases and requires evidence later. . . The order requires a compliance monitoring device by providing that the revenues generated by the increases should be expended for deferred capital improvements and maintenance of plant and equipment, and requires that records be kept. However, no provision is made to assure that other revenues now being expended or projected for maintenance and capital improvements will not be diverted to other spending. If a net increase in expenditures for the designated purpose does not result, all the reporting and compliance machinery are a waste of everyone's time and energy. . . .We cannot expect carrier compliance with any of our admonitions without developing the necessary incentives or fashioning *effective* sanctions."

We think the railroads operate under enough sanctions already, and that Commissioner O'Neal is unduly pessimistic. It is up to the carriers to prove it.

RAILWAY AGE

JUNE 24, 1974

FEATURES



COVER

A Sea-Land container train was moving through Weber Canyon near Petersen, Utah, when it was photographed by Don Lidikay, Union Pacific public relations representative.

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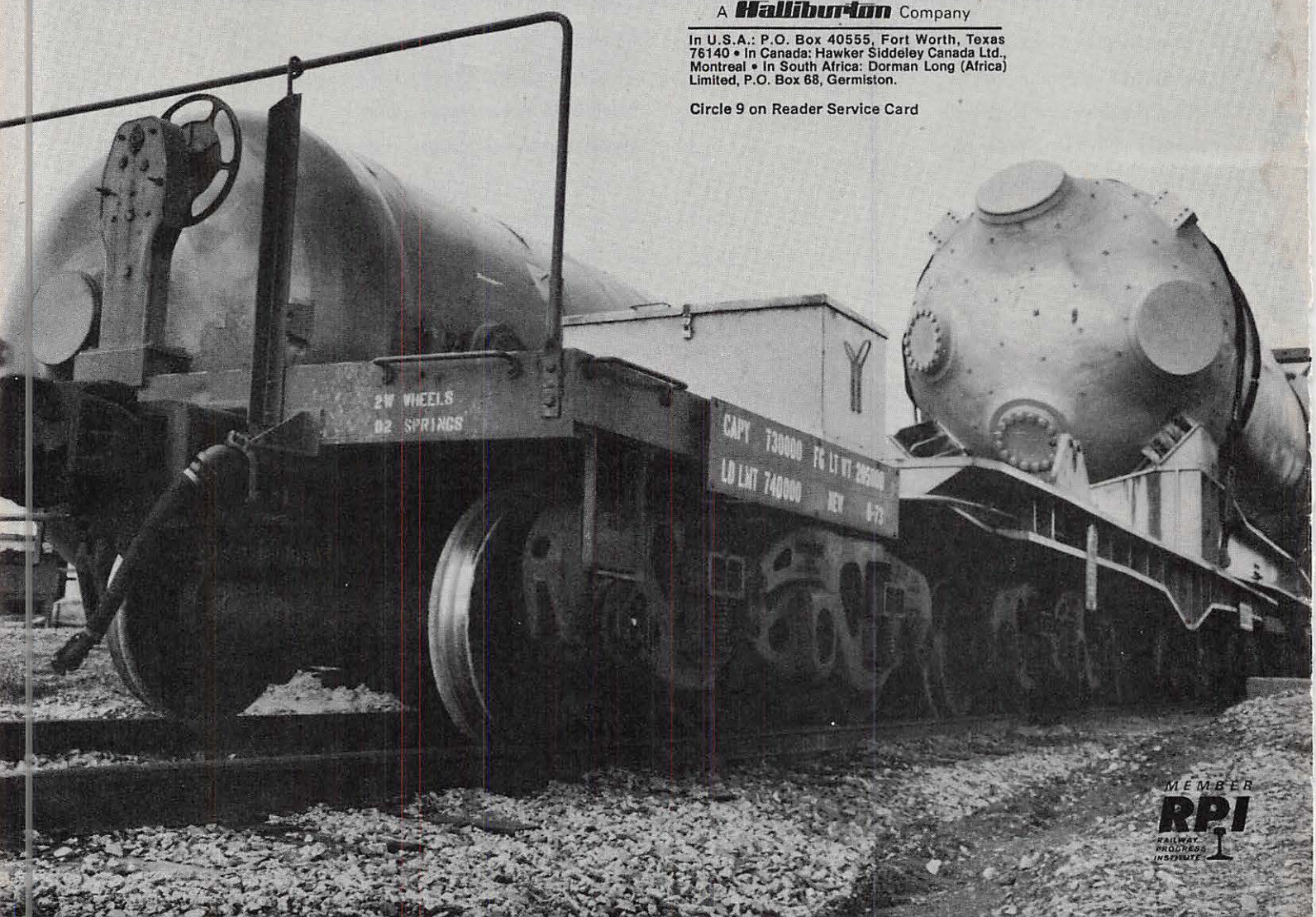

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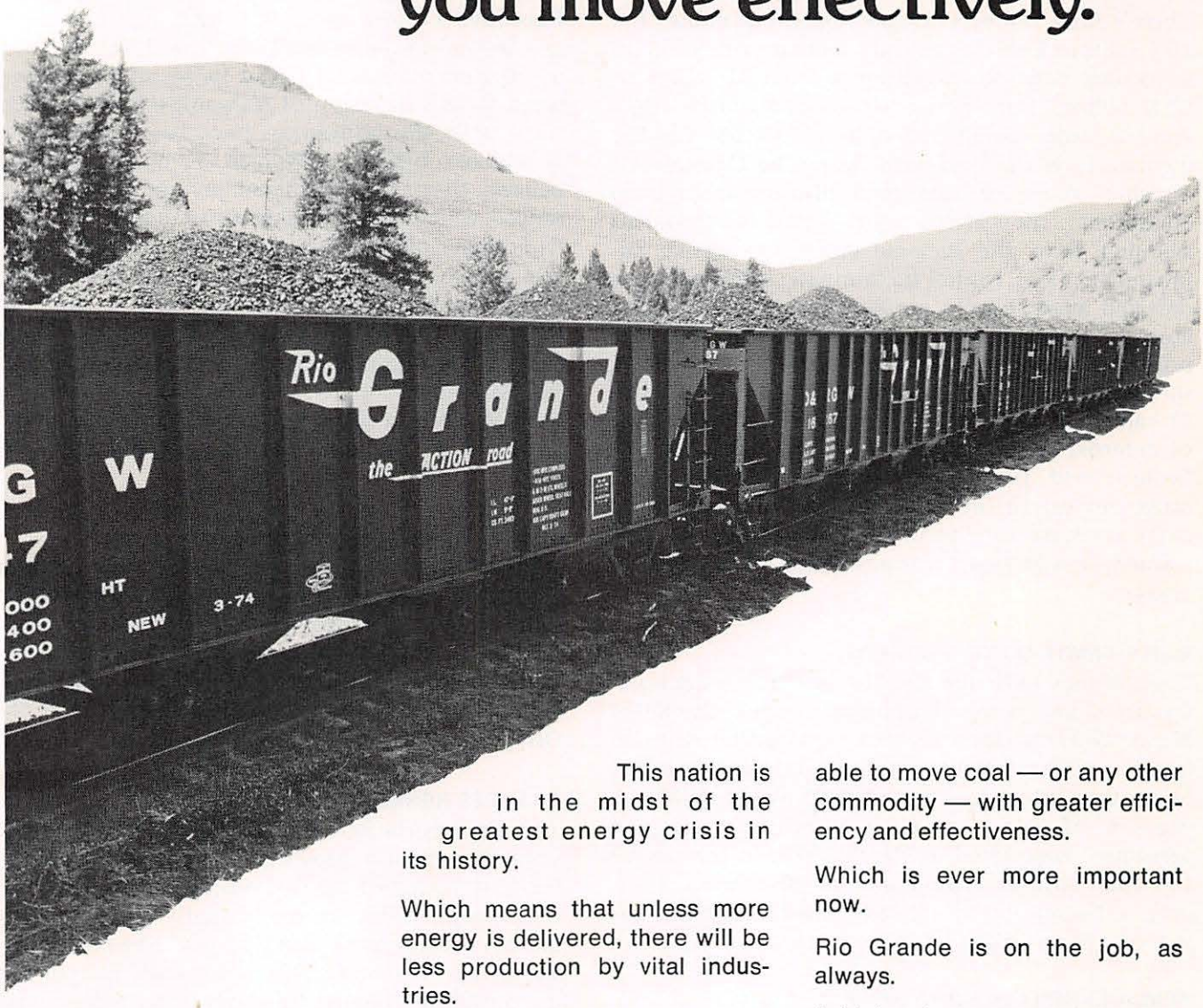

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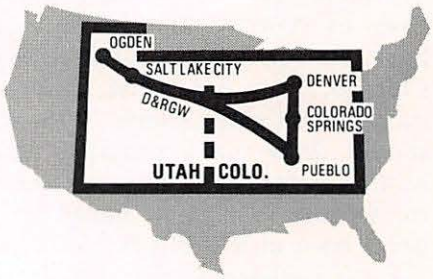

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Short and Significant

FOR IMPROVING SERVICE: $1 BILLION-PLUS

There's some doubt as to just how much money the 10% (before hold-downs) rate increase will yield on an annual basis. Estimates range from $1 billion to $1.3 billion. But there's no doubt that the ICC's June 3 order permitting railroads to file for the increase is in the landmark class. The Commission attached some unusual (and pleasing-to-shippers) conditions: the carriers must spend all revenues accruing from the increase either for service improvement (e.g., capital investments, catching up on deferred maintenance), or to compensate for higher costs of materials and supplies, excluding fuel. To police its order, the ICC will require a number of special reports—among them, present and past levels of capital and maintenance spending; a breakdown of deferred maintenance by equipment types and/or facility; and periodic statements of income and outgo related to the increase. Failure to spend the extra revenues for the indicated purposes, the ICC warned, would result in cancellation of the rate increase.

RAILS, SMWIA GO TO A BOARD

The nation's railroads and the last remaining holdout from last year's contract settlement—the Sheet Metal Workers International Association—will go before a Presidentially-appointed emergency board in another effort to iron out their dispute. SMWIA was one of only two unions to refuse to sign the agreement negotiated in March 1973. In the case of the International Association of Machinists, however, a Federal court recently ruled that IAM was indeed a party to the settlement.

REMSA EXHIBIT SHAPING UP WELL

Officers of the Railway Engineering-Maintenance Suppliers Association are hauling out the superlatives to describe the REMSA exhibit coming up Sept. 30-Oct. 3 at the International Amphitheatre in Chicago. They note, first, that this will be the first such exhibit since March 1972, which means that it should draw many products and services not exhibited before. Second, new companies are coming in: Of the exhibitors signed up thus far, 11 have never been at REMSA before. Finally, space reservations have been heavy: Close to 95% of available space is already sold.

BN VETOES INCLUSION OF MILWAUKEE

Burlington Northern and Milwaukee Road have wrapped up studies on possible inclusion of Milwaukee in BN—and there's a difference of opinion as to what the studies show. BN Chairman and Chief Executive Officer Louis W. Menk says operational and financial studies establish "that it would not be in the best interest of BN or its security holders to agree to the inclusion of Milwaukee in BN. Discussions with the Milwaukee have been terminated." Milwaukee Chairman William J. Quinn, however, believes that "the significant savings and improved service which in Milwaukee's opinion would result from inclusion would be mutually beneficial and in the public interest." Quinn says Milwaukee will study ramifications of the BN decision and "the soon-expected" ICC order in the Rock Island merger case before deciding on what to do next. The joint BN/Milwaukee studies were undertaken after Milwaukee petitioned the ICC for inclusion (RA, March 26, 1973, p. 12; April 9, 1973, p. 8; May 28, 1973, p. 8).

ANOTHER NEW YARD COMING UP?

Add Illinois Central Gulf to the list of roads pondering major improvements to terminal operations. Now under review by ICG President Alan S. Boyd is a study recommending construction of a new classification yard at Fulton, Ky., a key point located about midway between Chicago and New Orleans.

TAA SEES RENEWAL OF FUEL CRISIS

The Transportation Association of America's Fuel Council, which represents all modes, has warned that any easing of the fuel shortage is probably only temporary. "What we are currently experiencing is, in our view, no more than a hiatus," the council told the Office of Management and Budget in commenting on OMB's report, "Federal Energy Regulation: An Organizational Study." The council added: "Especially during the coming winter, when demands for middle distillate fuels rise once again, we foresee at least some degree of shortage that will adversely affect our oil-dependent industry. Long-range planning, including rationalization and coordination of the energy-regulatory activities hastily begun in the crisis environment of this past winter is, in our opinion, critical if this nation is to meet its energy problems with the realism necessary to efficient functioning of the national economy." While praising the general thrust of the OMB report, the council took issue with a proposal to create four new Federal regulatory units, warning that "creation of new administrative levels in government will lead to establishment of new and burdensome requirements being imposed on private industry."

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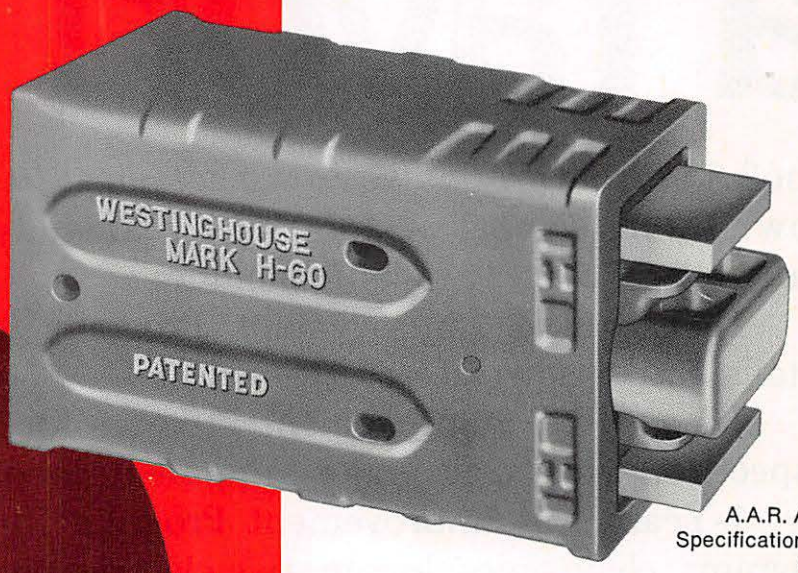
MARK H-60



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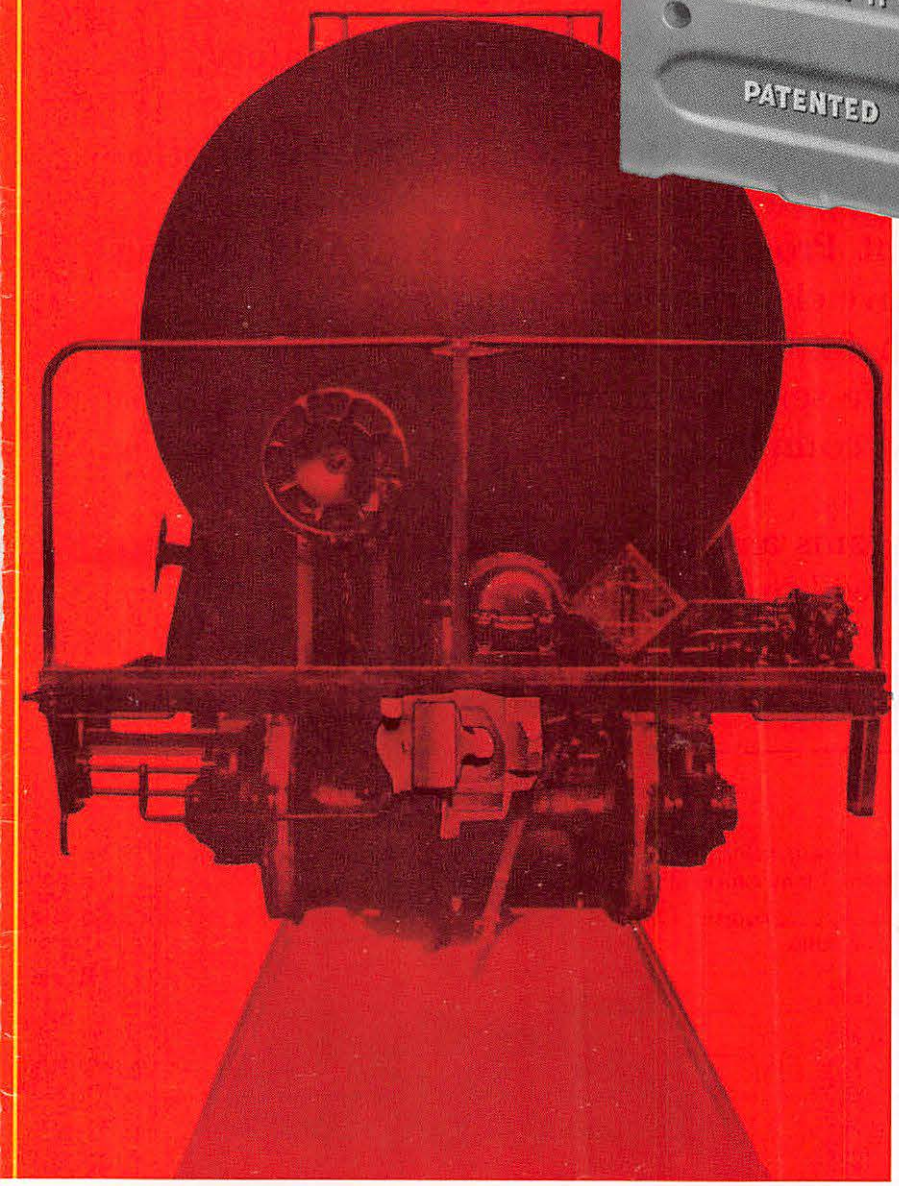

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Service reliability is worth the effort

If shippers and receivers on Southern Railway—and perhaps on other roads as well—are starting to notice a pickup in service-reliability, it may be due in some part to what Southern President W. Graham Claytor, Jr., calls "one of the most productive partnerships I have known among the government, the academic community and the railroad industry." That partnership really began with a three-year study of service reliability by Massachusetts Institute of Technology for FRA—and while the study itself is significant (RA, July 9, 1973, p. 38), it is what has happened since it was completed that may really be significant.

As Claytor recalled, in comments to the American Association of Railroad Superintendents' annual meeting, Southern was one of eight roads providing source data for the original study, beginning in early 1971, and in 1972 Southern became the test-tube railroad—the road on which reliability theories would be put to the test. Taking one operating area—which included four hump class yards, four major flat yards and more than 900 miles of mainline—MIT and Southern first analyzed performance and then came up with a "basic strategy for improving reliability."

That strategy, Claytor notes, had certain basic elements: "Don't handle the cars in as many yards. Run more trains or change train schedules or both, to cut yard-time and missed connections. Increase the reliability of each yard operation. And have enough motive power available to handle the normal ranges of traffic volume so that you won't have to cancel trains or reduce their size."

● **Measuring change.** Then came the time to make changes in operating procedure "so that actual results might be measured against what was expected. They weren't sweeping changes, and they involved no policy decisions. But computer simulation convinced the researchers that these changes would provide interesting results. One was to operate a daily train for all through cars in order to bypass a yard where these cars had been previously classified. Another was to monitor the performance of a major industrial switching operation to insure the transfer of cars at eight-hour intervals. A third was to move traffic from a major agricultural area on a daily train as usual but only as far as the nearest hump yard, with sufficient power regularly available there, thus easing the burden on a smaller flat yard. A fourth was to move traffic from one interchange on a run-through train to bypass an intermediate yard where it would otherwise have been reclassified. And the fifth was to change the arrival and departure times of four trains at one yard in order to reduce the number of close connections."

What happened? In most cases, changes "did improve reliability to a clearly-measurable degree. They also resulted in cost savings that in some instances were slightly greater than had been predicted." Two of the changes, Claytor says, "were clouded by the necessary introduction of other operating changes in connection with the opening of Sheffield Yard. But the researchers were convinced that they had come up with a blueprint for real and valuable improvement in the reliability of railroad service. And so were we."

"We can have greater service reliability if we want it enough and are willing to work hard enough to get it."

Southern's W. Graham Claytor, Jr.

● **"A direct challenge."** What does it all mean? To Graham Claytor, "What emerges clearly from the research study and recommendations is a direct challenge to our industry: We can have greater service reliability if we want it enough and are willing to work hard enough to get it. It won't be easy, and we'll have to readjust some of our thinking. As individual railroads and as an industry, we will have to make reliability a major corporate goal. We are going to have to talk together—fully and frankly—across department lines, with other railroads, between railroads and shippers and between management and labor, because we're all involved in this and we all have a stake in the successful outcome. We are each going to have to create service reliability teams that reach across departmental lines to bring the best thinking we can muster in transportation, sales, marketing, planning and research into the quest for greater reliability. Is the game worth the candle? To me, there is no question about it."

Southern, Claytor points out, has already put together a service reliability team, one that "crosses virtually every departmental line in the company and one that includes some of our top officers. They've recommended some changes that we have already put into effect. They're looking at all the implications of this reliability study, and the chances are good that we will be putting more of these ideas to work."

How about the rest of the industry? "We don't know how many other railroads are moving in this direction," Claytor says, "but we'd like to know. And we'd like to share ideas and techniques with them."

● **The blueprint stops here.** Into all this, where does the operating officer, the superintendent, the trainmaster fit? It's true, Claytor told AARS, "that the decision to make greater reliability a top-priority goal is a policy decision that goes well beyond the scope of operations alone. But wherever the decision is made, and whoever makes it, one thing is certain: You are the guys who are going to be handed the blueprint, and you will have a vital part in turning it into reality."

Southern's vice president-transportation, Harold H. Hall, put equal emphasis on the role of the superintendent in today's and tomorrow's railroad: "More than ever, he has to be a jack of all trades—and master of all of them. His knowledge and competence have to cover a lot of ground in a constantly changing transportation business. He is part operating officer, part market-researcher, part computer expert, part cost accountant, part personnel specialist, part teacher, part student, part materials-handling engineer, part transportation planner—and you can probably add a dozen more jobs to the list without half trying."

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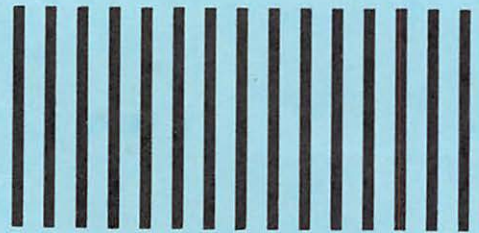

Change in transportation? Well, said Hall, "if I had to sum up in one word the degree to which our business is constantly changing, that word would be 'computer.' Now, the amount of processed data computers can provide and the speed with which they do it affect virtually everything we do... What the science of data-processing is likely to place at our command in the future, no one can say with certainty. But we can be sure that the railway superintendent will continue to have an important role in harnessing the computer to the day-to-day business of transportation. Of course, you, as superintendents, are not going to become data-processing experts or computer programmers, that's not the idea. But you will become more and more involved in understanding the way computer people think and work, because you have to help them translate operating realities into patterns of electronic impulses."

● **The personal relationship.** Hall also touched on change as it relates to the operating officer's dealings with the people who work with and for him: "More and more people, especially young people, are questioning the real value of the work they do. Does the job make full use of their abilities? Does it give them room to grow as individuals? How does their work contribute to the world around them? They're impatient at rules without apparent reasons. They're less likely to bow to tradition, more inclined to innovate. And in many ways, that's all to the good. We need people with that kind of ability to be at ease with change and to take advantage of change. They, in turn, need your seasoned judgment and guidance. They need the discipline that can be inspired by your experience."

Hall conceded that "we cannot escape being affected by the growing permissiveness that is evident in virtually all areas of our society. Yet there is small room for permissiveness in the complex and tightly-scheduled world of transportation. The superintendent must create and maintain within his sphere of action the firm and fair discipline that makes it possible for people to work together safely and effectively."

And what is discipline? It's a "habit of mind that grows out of an individual's understanding and acceptance of two concepts. The first is that when people work together, there have to be certain guidelines of individual and mutual responsibility. The second is that these guidelines really need to be set down in at least a basic body of rules, so that there is no misunderstanding on anyone's part about the nature of those responsibilities. Your ability to foster this climate of understanding and acceptance," Hall concluded, "is even more valuable now than in the past."

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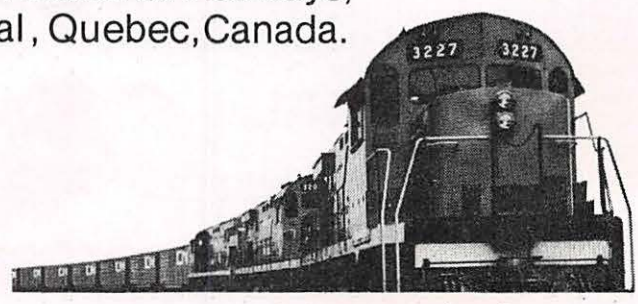

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A MAN FOR ??? SEASONS

The handshake is strong, but not obnoxiously so. The eyes are steely, but not really unfriendly. The voice is powerful, with all the right rises and falls and pauses and inflections for dramatic effect. The man is, quite possibly, the most charismatic former Federal-prison inmate to be walking the streets today. The man is James Riddle Hoffa—once, quite possibly too, the most powerful labor leader in the country and now an ex-labor leader fighting to get a portfolio back. It has been argued that Hoffa was the victim of a vendetta, a determination on the part of the government to get-Hoffa. It has also been argued, of course, that he did wrong; he was, after all convicted. Arguments aside, though, when you look at the man, when you listen to him, you do tend to come to the conclusion that this is a man to whom the end, the objective, the goal, is all-important. He is also a man who seems deeply concerned with the future. He talks of change, past and future. He talks of it in terms of improving the position of the teamster—but also in terms of improving the position of the industry.

HISTORY'S JUDGMENT: WHAT IS IT GOING TO BE?

In the old days, if history books covered the labor movement, it was to chronicle the activities of a Gompers, a Debs. Histories of today and tomorrow, however, have others to talk about—Lewis, the Reuthers, Abel. And Hoffa. Face it, Hoffa was the right man at the right time in the right place. He got into the trucking industry when he was about 16, when the motor-carrier industry was in its infancy. He worked his way up. And as he did, the union really was making a contribution to trucking, as well as to trucking's employees, by literally forcing the industry away from chaos and toward some semblance of order. He talks proudly of his role in convincing the Teamsters to accept containerization; he doesn't say much about union/member reaction when TOFC began to boom or when railroads started recapturing the automobile traffic.

NO MAN IS AN ISLAND, ETC.

Hoffa says such things as "None of us can live by ourselves, because it is a coordinated and integrated highway, rail, water and air transportation system that makes America great." He points out that carriers need and will need higher rates and increased productivity and better equipment—with the understanding and expectation "of making a profit, and that's what it's all about." He talks about what's important to lending institutions, so far as transportation is concerned: "They're interested in security and security doesn't mean hard merchandise for collateral, but a bottom-line that spells out what you can pay back in terms of financing and re-financing in order to carry on." He talks about what teamsters will likely be wanting in future bargaining, and this very much includes a lightening of the workload.

Idly, sometimes, you wonder what would have happened if railroads had grown up with a single strong union led by men such as Hoffa whose power was virtually undiluted. You wonder if railroads would have been better able to battle new competition, or less able than they have been. And while such speculation may be strictly academic now, still it's interesting.

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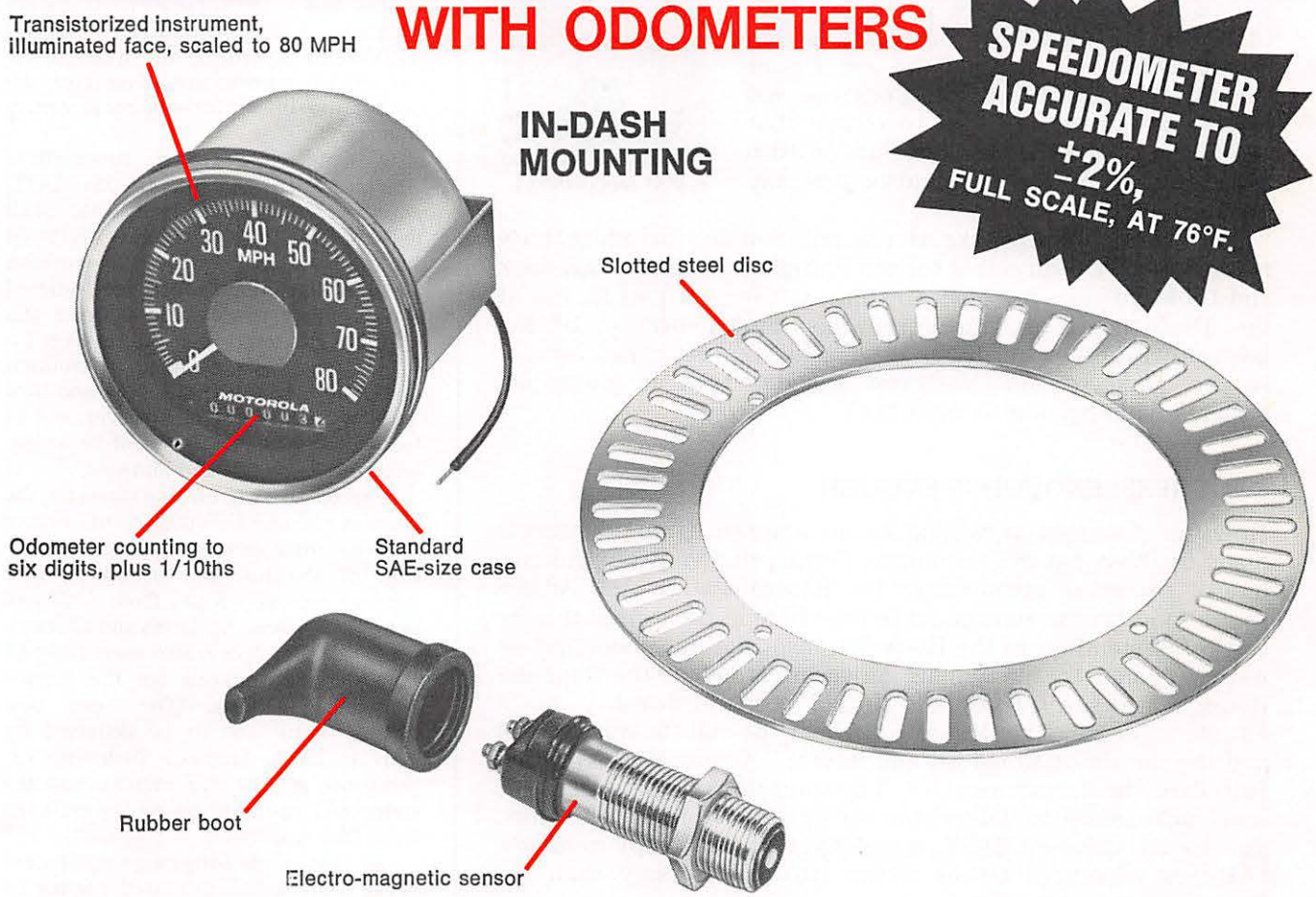

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Watching Washington

R.M.M. McCONNELL

BROCK ADAMS TALKS TOUGH

Once Congress finally passed the Regional Rail Reorganization Act of 1973 and nursed its passage into law in the first days of 1974, it seemed to go on vacation from the concerns that inspired the act. But at the same time, critics of the Congressional effort rose up on all sides to charge that provisions of the new law were unconstitutional, unfair, unworkable and/or generally unacceptable.

For several months, the House and Senate—including those members most responsible for the Reorganization Act—sat back and took criticism directed not only at their own work, but at the Department of Transportation's implementation of the law's provisions, especially DOT's massive report on *Rail Service in the Midwest and Northeast Region.* Now it looks like Congress is beginning to fight back.

CONGRESS: ENOUGH IS ENOUGH

How far Congress is willing to go emerges from comments made by Washington Democratic Representative Brock Adams, one of the major architects of the Reorganization Act. Adams told a food transportation conference here in the capital that he and other members of the House's transportation subcommittee were prepared to file amicus curiae briefs before the Supreme Court, if necessary, to uphold the act's constitutionality and to outline in detail "the manner in which the statute was created and the nature of Congressional intent." Adams also expressed fear that the Department of Transportation might not exert itself sufficiently to defend the act's constitutionality in court, due to an apparent DOT sympathy with bankrupt railroads' creditors seeking a better return on their money than the Reorganization Act offers.

Adding emphasis to Adam's concern was his announcement that he planned oversight hearings on the Reorganization Act in an effort to make clear to DOT and others that the act barred deficiency judgments against the government if the Conrail operation of the bankrupt roads did not provide enough relief to satisfy creditors.

HOW TO PERSUADE A "RELUCTANT DRAGON"

While this continued interest in the problems of the railroads on the part of Adams and other key legislators is encouraging in itself, Adams's closing words in his food conference speech provide even more hope for those seeking a balanced transportation program in the United States. Talking about the Department of Transportation, the Washington Congressman told his listeners, "We need your help in persuading a somewhat reluctant dragon to carry out the will of Congress, and to agree to passage of a new transportation program. The dragon does not seem too interested in what Congress has to say; perhaps it will pay more attention to the transportation community. I urge you not to sit back, relax, and leave the driving to DOT."

Talking tough about an intelligent transportation program hasn't been too common here in the past, and hearing tough talk from a legislator who has demonstrated he can back the talk with action is a good sign for the future.

Amtrak orders more equipment

Orders for 200 high-capacity passenger cars and six high-speed turbine trains have been placed by Amtrak. With these contracts, Amtrak will be adding nearly 18,000 seats to its system capacity which currently is about 57,000. Such orders, the quasi-public corporation reports, should establish the production lines "for still more orders to come."

With 25 diesel-electric locomotives which are to be ordered, the DOT-approved expenditure will total $112 million. The Budd Company will build the 200 cars and already is at work on 57 of similar design which were ordered earlier. From the outside the cars will look almost exactly like Amtrak's existing fleet of self-propelled Metroliners operating between Washington and New York. All the new cars, however, will be locomotive-hauled. They will be assigned in the Northeast and Midwest.

The six five-car turbine trains are the product of ANF-Frangeco of France and the order includes outright acquisition of the pair of Turboliners that Amtrak presently leases from ANF and operates between St. Louis and Chicago. The French builder is also assembling 41 of the same trainsets for the French National Railways. The four new turbine trains are to be delivered by early in 1975. Amtrak's Turboliner expenditure will be $18 million, and the trains will operated on routes radiating from Chicago.

As part of its long-range equipment plan, Amtrak has proposed buying an additional 14 turbine trains for use in the Northeast Corridor between New York and Boston. In approving Federal loan guarantees for Amtrak's equipment purchases, DOT deferred a decision on this request pending further studies.

The $81-million order for 200 Budd-built cars raises the firm's Railway Division backlog to an all-time high of well over $100 million. Inside, the latest cars have been substantially redesigned to allow an easy change of interior arrangement through use of "floor tracks" which are being used for the first time in U.S. cars. The cars would be easily convertible from day coaches to overnight coaches, or to lounge coaches or entertainment cars. The cars will be heated electrically.

The 25 locomotives, for which Amtrak has bids from Electro-Motive and General Electric, will be fitted with electric train heating generators, rather than steam boilers. Previously Amtrak had ordered 150 EMD diesel locomotives and 26 GE electric units. Amtrak plans also to order 100 high-level cars for long-distance trains.

In Order to Expedite Understanding

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Concrete tie test planned by NW

With the cost of hardwood ties soaring, and the supply diminishing, Norfolk & Western is joining those railroads that are taking a new look at concrete ties. Late this year NW will make a test installation of 800 concrete ties at Kumis, Va., on its Radford Division. Noting that about a dozen 160-car, 17,000-ton coal trains pass through Kumis every 24 hours, NW Chief Engineer L.A. Durham, Jr., says: "We hope to find out how well reinforced concrete reacts under our heavy tonnages. We are continuously testing for a better crosstie."

Two major factors, says NW, led to the decision to make a test of concrete ties:

—"Norfolk & Western, as well as other railroads, has found it difficult over the past few years to purchase hardwood ties. Increased competition has come from the furniture, pallet and construction industries. At the same time inflation has pushed the price of crossties up 41% in the last 18 months. Last year NW paid an average of $7.08 for a crosstie. This year the figure is expected to average $9.97. Additional increases are expected in 1975."

—"Another factor contributing to the tight supply of crossties is the adoption of new track safety standards by the Federal Railroad Administration. FRA's standards will require for the next few years that twice the number of crossties be laid annually in the U.S. than has been customary in recent years."

NW's right of way includes approximately 39 million ties under some 15,000 miles of track.

The Norfolk & Western each year installs about 1 million ties. This year NW has budgeted $12 million for crosstie replacements.

What rails need: One shipper's view

When a company moves something like 200,000 carloads of freight a year, and when transportation is recognized as the factor that literally keeps the company going, it is not surprising that the company's president gets deeply concerned about transportation and its future. Robert D. Stuart, Jr., president and chief executive officer of Quaker Oats, is concerned—and from his point of view, there are six main issues affecting the railroad industry and needing attention:

—The first is "the shortage of capital to renovate much of the physical plant which is in deplorable condition. . .Like many other people, I had assumed that the car shortage was the most urgent problem confronting the railroads and certainly confronting shippers. It has amazed me to learn the extent to which the car shortage may be less important than other capital needs."

—Railroads "are simply operating too many lines."

—An issue "that is most difficult for me to understand is the persistence of the railroads in marketing transportation at less than the variable cost of producing it."

—Despite "some recent encouraging signs of progress in labor relations, railroads still have far more than their share of problems."

—There is "the myth that nationalization is a satisfactory last resort."

There's the matter of competition, specifically as regards "defining the meaning of competition for railroads and doing something about it."

Stuart, addressing the annual dinner of the Chicago Traffic Club, did retain a bit of optimism, however, despite his list of issues that need answers. In terms of volume, he noted, railroads are in fact a growth industry.

ARAM names five Golden Spike award winners

Five Golden Spike awards for excellence in building better public understanding of the railroad industry were presented by the Association of Railroad Advertising Managers at ARAM's Golden Anniversary meeting in Monterey, Cal.

Presentations were made to representatives of the winning railway suppliers at the annual dinner. The group (above, from left) included ARAM President-Elect Tim Hogan of Missouri Pacific; Kirk Goza, advertising manager of the Gustin-Bacon Group of Certainteed Products (Agency: Valentine-Radford); Paul D. Howard, sales manager of FreightMaster division of Halliburton Services (Agency: Glenn Advertising); William H. Portz, advertising manager of Stanray Corp. (Agency: Clinton E. Frank); J. Herbert Lund, manager-marketing services of American Steel Foundries (Agency: Graphic Persuasion); Robert C. Sharp, advertising manager-Railway Products, General Electric (Agency: Batten, Barton, Durstine & Osborn); and 1974 ARAM President Robert D. McIntyre of SP.

In addition to Hogan, the incoming ARAM officers include First Vice President C. Norman Beasley of The Family Lines; Second Vice President Wilson M. Fleming of Santa Fe; Third Vice President Robert G. Nelsen of Union Pacific; and Secretary-Treasurer Joe Singer of the Chessie System (retired).

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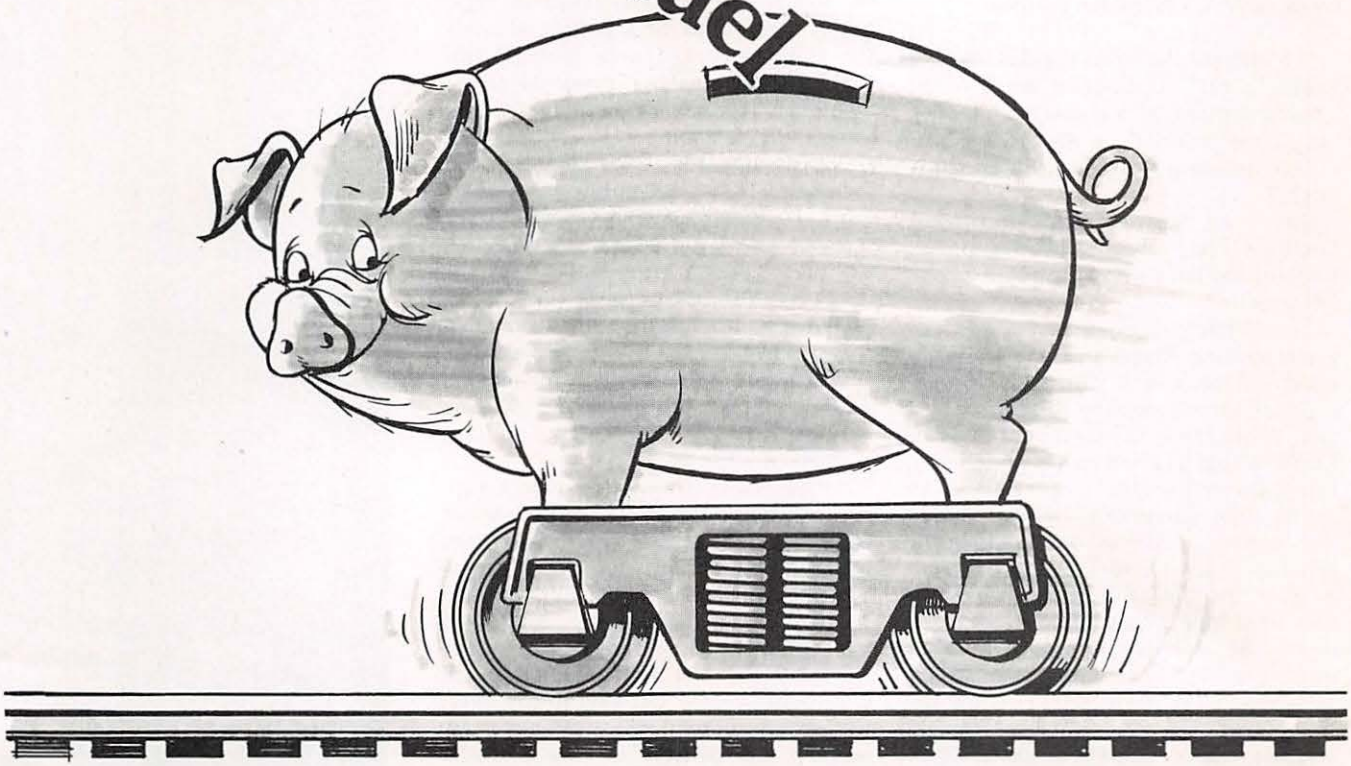

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SPECIAL REPORT:

For TOFC/COFC, a brighter-than-

By GUS WELTY, Senior Editor

To observe that TOFC/COFC has "a bright future" is about as much of an understatement as an observation that "the Pope is usually a good Catholic."

The question really is: How bright is bright?

For one answer, consider what Southern Pacific President Benjamin F. Biaggini has been saying. And do a little arithemetic.

A veteran railroader—and good businessman—Ben Biaggini is not about to crawl out on a limb without first making sure there's nobody around with a saw. What he's saying about TOFC/COFC is that (1) he expects revenues to top $100 million this year, and (2) he thinks that intermodal traffic "could well represent 20% of our total freight revenues in the foreseeable future."

Now for the arithmetic. Last year, SP's total freight revenues were approximately $1.34 billion. Through the first quarter of 1974, revenues were up by 10% and if this were projected for the full year (not allowing for rate increases), revenues would be about $1.47 billion. If TOFC/COFC had represented 20% of last year's gross, it would have brought in $268 million. If TOFC/COFC were to represent 20% of this year's projected gross, it would bring in $295 million. But, (1) SP is "only" looking for $100-million-plus this year, and (2) given the competence of SP, the growth of its territory and the likelihood of future rate increases, total revenues will inevitably climb, thus creating a larger base on which to calculate that foreseeable 20%.

● **One out of many.** Bright future for TOFC/COFC? Brighter-than-ever future? Southern Pacific obviously thinks so—and SP is by no means alone in that kind of thinking, as the 1974 Railway Age TOFC/COFC survey clearly points up. Nineteen major piggyback operators were polled. Nineteen replied, most of them in detail. Nineteen are optimistic.

But, there are a couple of snakes to be slain before the industry can get this Garden of Eden in full, rich, lush bloom, And the biggest of these "snakes," the real constrictor, is terminal capacity—or, perhaps better put, terminal capability. Return to SP's bullish attitude for a moment—and note that SP this year will be making major improvements not to one or two but to five intermodal terminals, at Los Angeles, Oakland, Houston, New Orleans and Memphis. It's a recognition—shared by most, if not all, piggyback operators—that the battle for TOFC/COFC growth will be fought on many fronts but most likely won (or lost) in the terminals.

● **What's important?** In analyzing today and forecasting tomorrow, however, the people responsible for making TOFC/COFC a profitable and growing mini-industry are also thinking about a number of other factors;

—One, of course, is equipment supply, both flat cars and trailer/container equipment. A year ago, railroads were for the most part plagued by shortages, and problems exist today. But the situation is a lot better than it was in mid-1973. By the end of this year, Trailer Train will have about 40,700 intermodal-service flat cars in the fleet, including approximately 9,000 cars ordered for delivery in the 1973-74 period. During this year, too, trailer/container lessors are throwing additional equipment into piggyback: Realco will put about 4,600 trailers into its fleet, and projects demand for between 4,000 and 6,000 units each year for the next five years; Xtra is budgeting $40 million for trailer, container and chassis equipment in its 1974-75 fiscal year, and plans to boost spending to between $50 million and $60 million in the 1975-76 year. All this, of course, is in addition to commitments by individual railroads for purchase of trailers and, to a lesser extent, cars.

—Other factors are the impacts of the energy shortage and of environmental concerns, both of which (at least in theory) should lead to increased rail business. Perhaps surprisingly, not many TOFC/COFC experts think either factor has been of real significance in the almost-16% increase in TOFC/COFC loadings last year or in the continuing growth this year. Not surprisingly, however, most believe that there will be long-range benefits for piggyback as the

BURLINGTON NORTHERN calls it "the largest 'boxing arena' in the Pacific Northwest": It's the South Seattle TOFC/COFC terminal, built at a cost of $3.5 million and equipped for side-loading/unloading of trailers and containers.

Burlington Northern photo, by Richard Steinheimer

ever future — if. . .

energy problem stays with the nation and as environmental worries continue.

—To a man, almost, the people closest to TOFC/COFC regard it as a prime weapon, maybe even the primary weapon, in the railroads' fight to get private motor carriage back on rail. This, it might be noted, reflects a shift in opinion from just a few years ago, when railroads tended to regard traffic lost to private carriage as traffic lost for good. Energy and environmental factors, no doubt, explain the change in thinking.

—On containerization, nothing much has changed. The forecast for the future of COFC, at least for the predictable future, can be summed up simply: For international traffic, great; for domestic traffic, dreadful.

—On the individual piggyback plans which are showing the greatest promise, Plan 2½ comes out far in front, with Plans 3, 4 and 5 getting good support and Plan 1 and a straight Plan 2 bringing up the rear.

—As to the areas of greatest potential for building profitable TOFC/COFC traffic, the 19 railroads surveyed came up with more than two dozen suggestions. And that adds weight to a comment from David F. Jones, assistant vice president-intermodal traffic at Louisville & Nashville: "The field is wide open for building a profitable TOFC/COFC business."

● **Returning private to "public."** Among the most significant comments in response to the Railway Age survey were those relating to private carriage and piggyback. A sampling:

—Ultimately, says SP's T.A. Fante, general manager-intermodal traffic, "we believe there will be a substantial return of private trucking to rail piggyback. The rising cost of highway trucking plus the pessimistic outlook for energy in the long term will necessitate that more companies using private carriage take a new look at their options. More and more traffic will swing to piggyback."

—Illinois Central Gulf regards TOFC/COFC not merely as an effective answer to the problem of getting private carriage back on rail but as "the rails' *only* hope." But, ICG says, costs are

Piggyback's share grows

Year	Revenue Freight Carloadings	TOFC/COFC Carloadings	Percent, TOFC/COFC of Total
1964	29,027,000	890,000	3.0
1965	29,247,000	1,034,000	3.5
1966	29,623,000	1,162,000	3.9
1967	28,083,000	1,207,000	4.2
1968	28,252,000	1,337,000	4.7
1969	28,237,000	1,344,000	4.7
1970	27,160,000	1,257,000	4.6
1971	25,265,000	1,199,000	4.7
1972	26,105,000	1,331,000	5.1
1973	27,322,00	1,543,000	5.6
1974	—	—	6.3*

*—Projected, based on 21 weeks.

making it hard to compete with the free Interstate system; additionally, ICC procedures are a hindrance in designing competitive packages."

—R. B. Short, director-TOFC/COFC at Norfolk & Western, notes that intermodal service has recaptured traffic from private carriage "and has prevented the conversion of a significant volume of traffic." As a result of the energy crisis, he says, "we have had contact from shippers engaged in private carriage who are considering intermodal service as an important alternative in maintaining reliable transportation services and minimizing cost of distribution."

—L&N and Penn Central like piggyback's chances, but they add a word of caution. L&N's Dave Jones calls piggyback "an effective answer, not only to returning private carriage to rail but also to returning other types of surface carriage, and if the energy crisis continues that return may be accelerated." But, he warns, there are factors that may inhibit private carriers from switching to rail, namely availability of rail equipment and TOFC/COFC price and service considerations. Penn Central thinks piggyback can compete, especially at 400 miles and up; but, in what may be a poignant comment, PC also points out that "improvements in fixed plant and service are necessary."

—Rio Grande says piggyback "may be the only immediate answer" to getting private-carriage traffic back on rail, "provided carriers are willing to customize service in an effective manner in order to compete." Rio Grande observes, too that "investment considerations still make it extremely difficult to displace established private carriage."

—At Rock Island, H.S. Ownley, general manager-TOFC sales, sees piggyback as effective in regaining business and as a deterrent: "With the cost of fuel continuing to spiral, I'm sure there are very few companies at this time that would switch into a private-carriage operation provided that we can offer an expeditious and reliable piggyback alternative."

—At this point, Burlington Northern sees some evidence of diversion from private carriage "and diversion should be a trend over an extended period particularly in longer-haul markets."

—Seaboard Coast Line can document only marginal success thus far in getting back traffic moving by private carriers, but "indications are that success will continue. Some determining factors will be shipper labor costs, fuel costs and supply, rate structures and shipper competitive-service requirements."

—Frisco regards piggyback as an effective tool in the private-carriage battle "if carriers respond by quickly establishing levels of rates acceptable to both shippers and carriers as well as by

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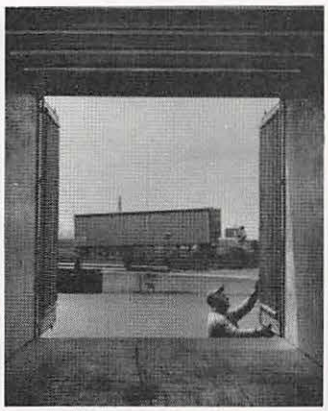

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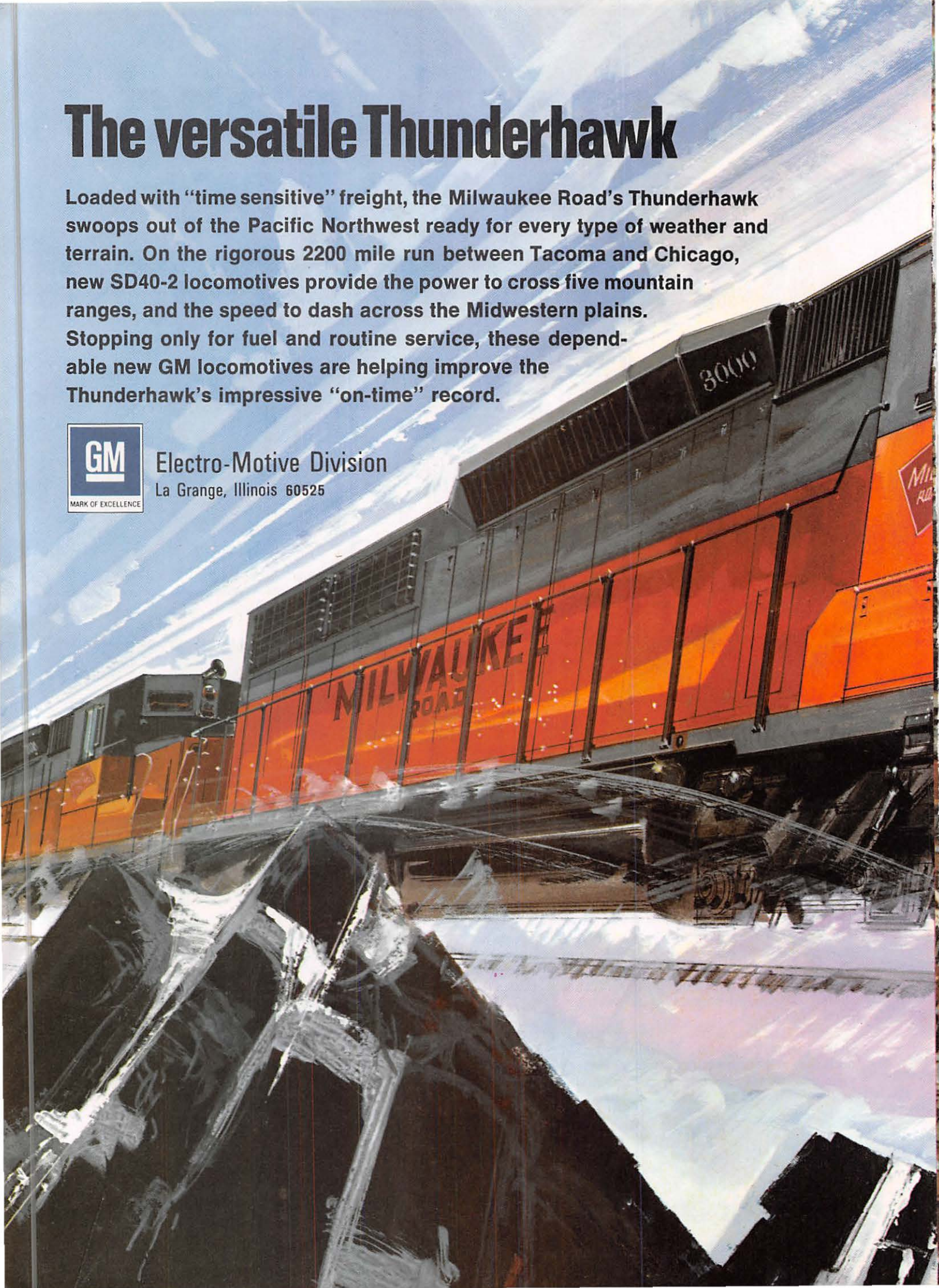

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Chessie finds the outlook for piggyback "more optimistic than at any other time in the past decade"

providing the service demanded by private-carriage shippers."

—Katy and Western Pacific are more in the "yes, but" category. Katy sees TOFC/COFC as effective in competing with motor common carriers on long hauls but thinks that "economics makes it difficult to compete with private carriage." WP's Don L. Loftus, director-intermodal department, observes that piggyback "has been only a partial answer to getting private carriage on rail. Use of owner/operators by private carriers has placed highway cost at a low level. Also, private carriage often involves stops enroute, which would cause excessive delays via rail."

Those comments on switching private carriers off the highway and onto the rail lead rather naturally into the experts' observations as to where the potential for TOFC/COFC growth really lies. And it's a spectrum of potentials:

—Southern Pacific's Tom Fante, for example, thinks the building-up of additional profitable TOFC/COFC business must involve provision of a better service and development of more efficient equipment utilization through operation of more high-speed dedicated TOFC/COFC trains on frequent schedules between major terminals—plus, of course, continued improvement in terminal handling of trailers and containers and continued gains in obtaining a better traffic balance.

—As for specific segments of traffic that appear to be fair game, L&N's Dave Jones points out that "fuel costs and the energy crisis have encouraged all users of highway transportation to re-examine rail, taking into account lower cost and the railroads' fuel-consumption advantage. . .Shipper associations and cooperatives and many others are continuing to explore the many ways TOFC/COFC can be effectively and economically used."

—From the Jacksonville headquarters of The Family Lines comes the observation that "every area of our commerce has great TOFC/COFC potential . . .However, the greatest potential for profitability lies in eliminating short hauls, which will permit motor carriers to operate in the short-haul distribution phase and permit railroads to move traffic over the long haul. This applies to present traffic, both motor carrier and private carriage."

—Norfolk & Western zeroes in on the trucker: "The largest potential intermodal market remains the motor common carrier of general commodities. Inasmuch as a large portion of the motor-carrier traffic consists of small shipments, there is a substantial market potential in developing distribution programs in which rail intermodal service can exercise its line-haul capabilities."

—Rock Island's Howard Ownley agrees: "I think the greatest potential at this point is still in the conversion of motor-carrier traffic to piggyback."

—Burlington Northern sets its sights on "diversion from private carriage, on ramp-to-ramp structured rates," while MoPac likes the potential in building business from private carriage and from traffic via common carrier, and Frisco cites the opportunities in "motor carriers' use of open-tariff provisions in substitute service, and in the operation of dedicated TOFC trains—with dependable ontime arrivals."

—Southern takes a broad look: "With the fuel problem facing highway users, we feel the new transportation needs created by an expanding economy will offer our greatest potential for building profitable TOFC/COFC business."

—For Rio Grande, the targets are Plans 4 and 5 and international traffic. For Penn Central, it's ramp-to-ramp traffic at distances of 400 miles or greater. For Chicago & North Western, up among the leaders in recent piggyback growth, it's a matter of routes—routes linking dense industrial areas, including Chicago/West Coast, Chicago/Twin Cities and Twin Cities/West Coast. For Milwaukee Road, it's that long haul between the Pacific Northwest and the Midwest and between the West Coast and the Southeast via Milwaukee's Louisville extension.

—When Union Pacific looks at the potential, it's looking at transcontinental traffic in Plan 4, plus variations of Plan 2, "with some potential for Plan 3."

—Western Pacific gets very specific: "The greatest piggyback potential is in Plan 2 and Plan 5 ltl between northern California and Utah/Colorado points, primarily because of our marketing of truck-competitive service and rates." Katy, on the other hand, is more general: "Our greatest potential lies in concentrating sales efforts in areas of maximum profitability and in developing a more balanced traffic flow with the attendant maximization of equipment utilization."

—As for ICG, concentration will be "in the area of freight handled by both private and contract carriage. We feel there is potential in specialized haulers and we intend to explore it."

—Chessie System's S.M. Christovich, general manager-intermodal services, calls attention to uniform and across-the-board support given piggyback in the form of dependable and realistic line-haul service. And he may reflect an industry consensus in observing that "Today, the general outlook is more optimistic than it's been at any other time in the past decade."

● **Then—and now.** Those comments, for the most part, deal with tomorrow. But what about today? What does the record show, in terms of 1973 and in terms of unfolding-1974? It shows, for one thing, that well over one-third of the roads participating in the Railway Age survey posted loadings increases of more than 20% last year—and that well over one-half are building on that bigger base with gains of more than 10% through the first quarter of '74. Not a single road reported a drop in traffic last year; not a single road failed to report a continuing gain, '74 over '73.

What the figures may show at the six- or nine-month points could be something else again, because there has in fact been a bit of a softening in TOFC/COFC. Nevertheless, on an industry basis carloadings have been running more than 8% ahead of 1973 figures, with trailer/container loadings up by closer to 9%. As for comparisons between this year and 1972—the year piggyback rebounded after two more-or-less dead years—carloadings are up by about 24%, trailer/container loadings by about 28% (and if mail and express are excluded, the respective figures are 28% and 33%).

Percentages, of course, can be misleading. In 1972-to-1973 increases, top-dog was Katy with a gain of more than 71%, while the road at the bottom was Penn Central, with an increase of just 1.3%. But when you consider the traffic base, and the percentage base, PC's showing is not to be scoffed at—and, perhaps most significant, through the first quarter of this year PC was coming on strong again, with a 12.8% jump in piggyback loadings.

Among the most consistent gainers: Chicago & North Western, up 49.5% last year and up 49.2% this year; Southern Pacific, up 21% and up 20%; Rio Grande, up 30% and up 23%; Western Pacific, up 18% and up 30%; BN, up 13.3% and up 14.6%; Milwaukee, up 12.8% and up 18.5%; Seaboard Coast Line, up 18% and up 16%, and L&N, up 11% and up 13%; Southern, up 11.5% and up 9.8%. And joining Penn Central in the ranks of roads that are coming on after a modest growth year: Rock Island, up 4.7% last year but up 12.5% in 1974.

● **Loadings—and dollars.** On the money side, consider just a couple of examples:

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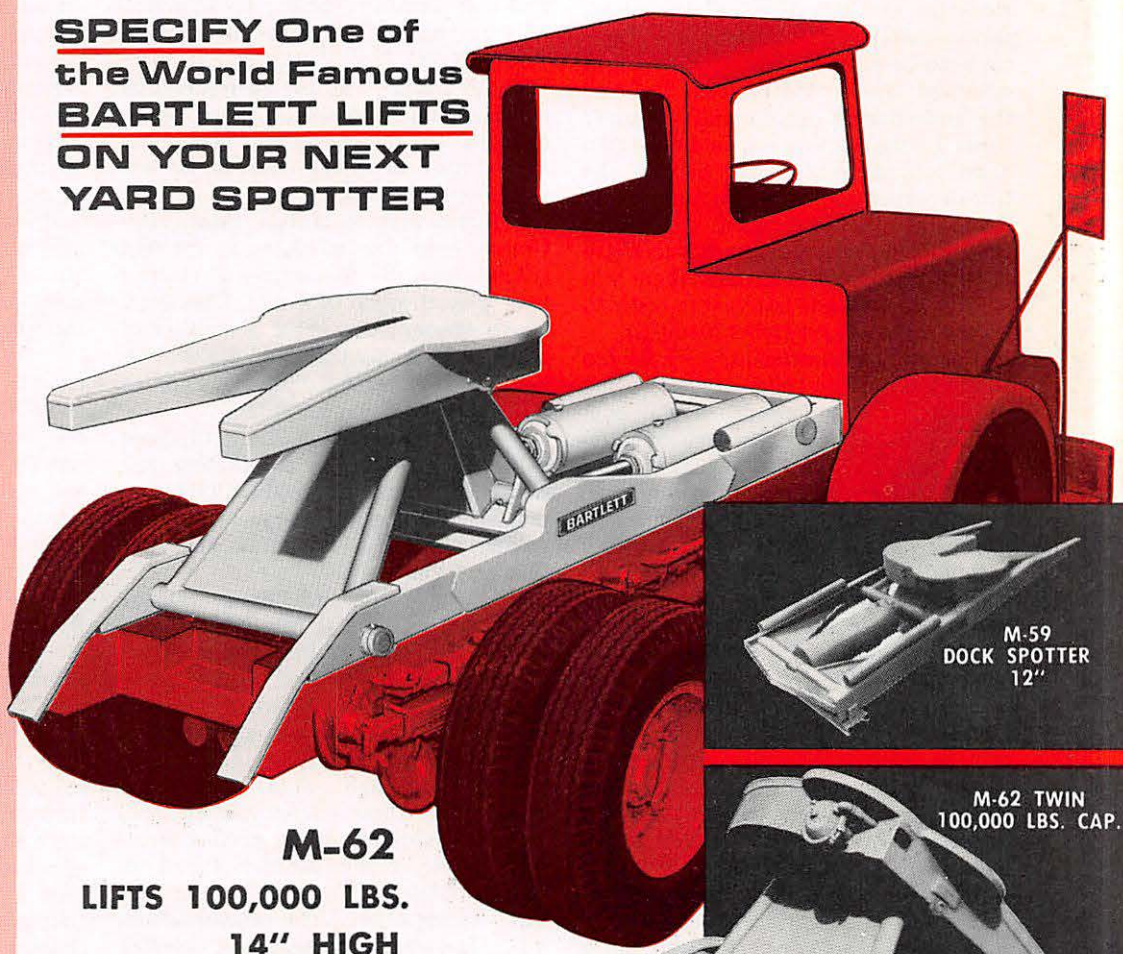

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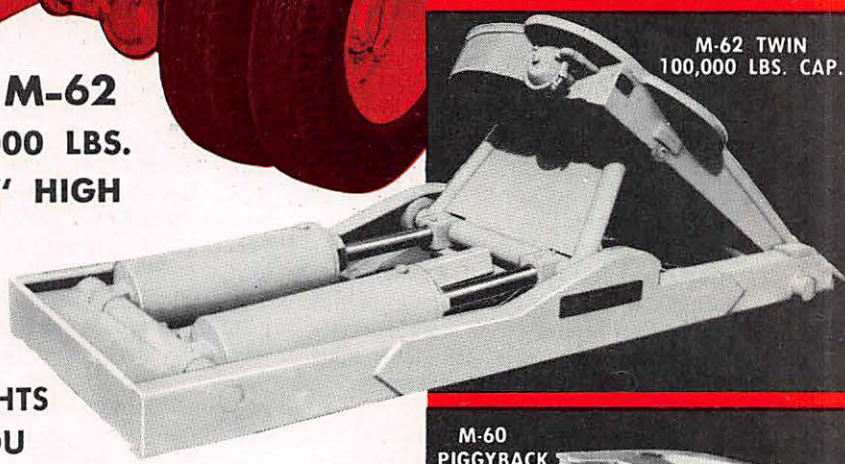

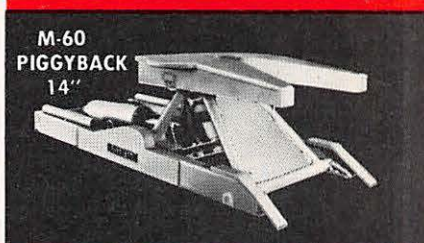

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Energy/environmental considerations may produce long-term gains, but so far the effect has been small

For SP, that 20% increase in loadings in first-quarter 1974 represented a gain of about 30% in revenue. Santa Fe, relying heavily on long-haul Plan 4 traffic, had a healthy increase in '73 and the pattern is continuing: Through the first four months of '74, TOFC/COFC revenues were up by about 15%, and in April alone the gain was 35%. (At this point, approximately half of Santa Fe's piggyback business is in Plan 4, with about one-third represented by Plan 2½. And the all-important profitability figures? Santa Fe traffic people would rank Plan 4 on top, at least in part because the truck-competitive rate structure established in 1958 has been maintained without hold-downs through successive rate-increase cases, although there was an adjustment made last year in order to promote heavier per-trailer loading.)

● **Energy? Environment?** What has brought about the traffic increase being uniformly experienced? Not, apparently, energy or environmental concerns. And that's interesting, in view of what the country has been through in the past year and a half or so, with fuel in short supply, with fuel costs soaring, with highway speed limits being reduced and with environmentalists in hot pursuit of the "polluting" motor vehicle. Major TOFC/COFC operators offer these comments:

—Santa Fe, like most roads, sees relatively little direct present connection between traffic increases and the energy problem, but it's looking for energy considerations to become more important as shippers convert to an increasing extent from use of motor carriers or their own over-the-road equipment. Even now, studies do show some specific instances of traffic being diverted from highway carriage to piggyback, presumably on account of fuel shortages and higher costs of fuel. Interestingly, too, motor carriers seem now much less interested in talking price-concession on piggyback and much more interested in talking service and equipment-supply.

—SP agrees that recent gains can't be directly pegged to the E/E causes, but "energy and environmental effect, we feel, will lead to long-term gains."

—On The Family Lines, the experience was different, SCL and L&N. SCL reports that "demand for equipment exceeded supply before the energy crisis occurred," while L&N believes that a significant part of its 1974 increase can be laid to energy considerations.

—Rock Island sees the past fuel shortage as causing "a temporary increase in piggyback loadings, but the bulk of this additional traffic returned to the highway carriers as fuel became more plentiful. Continued increases in fuel costs, however, could influence another return to piggyback by both shippers and motor carriers."

—Burlington Northern also cites the fuel-cost situation, calling it "undoubtedly responsible for some diversion to TOFC/COFC. But it's difficult to identify the traffic." As for environmental concerns, traffic diversion "may be attributed to transportation economics rather than to direct concern for environmental factors."

—Roads such as MoPac, Frisco, Rio Grand, Penn Central, Katy doubt that either energy or environmental matters have played much of a role; Chicago & North Western says what a number of roads are probably thinking: E/E worries did have some effect, "but not as much as was originally expected."

—On the other hand, Southern, faced with the question as to whether any significant part of TOFC/COFC increases was due to energy or environmental concerns, has a fast and neat answer: "Yes."

—Union Pacific and Chessie link the question to other factors. UP tends to believe that minimal increases in piggyback business because of the fuel problem were more than offset "by loss in production and shipment of manufactured goods occasioned by energy cutbacks." Chessie's Stan Christovich agrees that "these energy and environmental considerations are making themselves felt in the positive thrust of traffic, but it's difficult to measure the specific magnitude. As a generalization, these factors have probably deterred consideration of diversion from TOFC/COFC to motor carrier more than they have contributed to add-on traffic."

—Norfolk & Western probably sums it all up as well as any road: Today and recently, energy and the environment haven't really meant that much to piggyback. But, "the long-term economic impact appears favorable to intermodal service."

● **How about the "horses"?** Regardless of what's working to bring about increases in TOFC/COFC, though, there's an old saying to the effect that you can't win a horse race if you don't have a horse. So, what about equipment supply? Is it as much a problem as many people said it was a year ago? Or, have Trailer Train, highway-rig lessors and individual railroads caught up with demand? The evidence indicates that they have, and that if you need a car or a trailer or a container, the odds are pretty good that you're going to get it.

Again, there are differences of opinion:

—Currently, Santa Fe regards supply of both cars and trailers as tight, though not really in a "shortage" situation. Like a number of major TOFC/COFC operators, ATSF has been consistent in adding trailers to the fleet—and it's unique, or almost so, in declining to depend solely upon Trailer Train for cars: 500 flat cars are on order, for use solely on Santa Fe, and further additions to the proprietary car-fleet are under study. It's all a matter of getting the business: "We continue to have as much piggyback business as we can handle—but we could have had, and we could have, more business if we had the equipment to handle it."

—On the plus-side, Southern Pacific regards equipment supply as adequate, as do Katy and Milwaukee. Rio Grande has had spot shortages, "but nothing serious." NW sees supply of both cars and trailers as increasing, Union Pacific reports equipment as "tight but adequate," with only a few critical situations. But, UP adds, "no surpluses have been developed in either trailers or flat cars in the past 18 months."

—Western Pacific reports only spot shortages, and only then in TTAX and TTCX cars for movement of minibridge containers. Penn Central, the industry's biggest in TOFC/COFC loadings, says car and trailer supply was "very tight through Easter, but easing up steadily since then because of deliveries of new cars and trailers." Southern has a similar view: "Severe shortages of cars and trailers continued through the first quarter. But demand declined over the Easter holidays and supply equaled the demand."

—BN credits self-help for helping: There were some limited shortages thus far in '74, but "action taken on the system to establish rigid controls is directly responsible for improving supply of flat cars and trailers available at terminals."

—Like some other roads, North Western has experienced an improvement in equipment supply after a tight period. But C&NW adds a warning: "All projections indicate that the need will outstrip [car and trailer supply] for several years."

—The Family Lines report problems. SCL says it's been short of trailers and extremely short on flat cars: "However, some relief is expected for the second quarter." L&N, meanwhile, cites equipment shortages as the big reason why its

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Containerization? Import/export business is booming. But the

piggyback gain was only 11% last year. First-quarter shortages of both types of equipment were critical, L&N notes, though a softening in the economy may rapidly eliminate the problem—expecially if it's coupled with an increased equipment supply. The Family Lines are due to get 3,500 new trailers during first-half '74, and it's just one of many major systems with large orders on trailer-builders' books.

—Elsewhere, RI reports serious problems all of last year with flat-car supply "but in 1974 the situation has been greatly improved." Trailers have been a lesser problem, because Rock Island, for all its financial problems, has tried to maintain a sizeable fleet and is adding to it (by 750 units) this year. Chessie calls equipment supply still tight, but better than last year. MoPac found first-quarter supply tight on both cars and trailers. Frisco says both car and trailer supply "have been critical since early 1973," though problems have been easing lately.

● **And then, COFC** Finally—since the front cover of this issue of Railway Age with its Special Report on TOFC/COFC does show a container train—what about COFC? Where's containerization going? And what kind of traffic will be containerized?

If you want something close to unanimity in an industry not always noted for it, ask those questions. And you'll get something close to unanimity: While containerized import/export business booms, strictly-domestic shippers—and maybe railroads and motor carriers, too—are simply not ready for the unwheeled box.

Santa Fe, for example, can report minibridge container traffic still going strong, with Seatrain the principal user and Seatrain providing a train a week in each direction between California and the East Coast. Santa Fe can also point out that there is some full-landbridge traffic moving, traffic with an ocean haul on both ends; Seatrain doesn't use the Panama Canal, and about 10% of its unit-train cargo is cargo moving between Europe and the Orient.

For its part, Southern Pacific notes that while over-all TOFC/COFC loadings were up by 21% last year, COFC loadings jumped by 48%. But, Tom Fante is quick to say, the container growth "is showing in international trade only. There is no real domestic business in sight."

Only one road, Missouri Pacific, replies to the question "What future do you see for containerization, both in domestic service and in international traffic?" with a one-word answer, and the one word is "Excellent."

Other roads point to possibilities—and problems—even in the international-trade area:

—Frisco believes that "cancellation of interchange agreements by southeastern carriers limited containerized movements in international trade." Further, "we don't foresee a significant increase in either domestic or international containerization until additional lift-on/lift-off facilities are available."

—Milwaukee Road, on the other hand, notes that "domestic growth is already well on the way in Canada, and it will probably expand into the United States."

—UP likes the international possibilities, "especially as consolidations in exporting countries increase." Penn Central sees growth "as container services are extended to additional parts of the world."

—On the problem side, BN sees international containerization as continuing to grow "but at a slower rate than during the past five years."

—Southern expects international traffic to continue to grow: "Our charging for empty movements of marine containers, instituted in 1973, has made this traffic more attractive."

L&N is also optimistic about the prospects for international containerization, "provided railroads and water carriers agree on the inland loaded move and the empty return of the container or the reverse."

—ICG sees the use of containerization in domestic service principally in terms of using domestic loadings for the positioning of containers for international loading. Like most roads, it sees international containerization as growing—but use of "trailers in Ro-Ro service will grow even faster and will appear on some relatively long trade-routes."

—Chessie's Stan Christovich would agree that the "thrust into more international containerization will continue." But, he warns, longshore-union work constraints and wage levels "are going to become bigger economic deterrents as time goes on."

● **Problems, plus.** There are, of course, a lot of other problems in trying to chart TOFC/COFC's likely growth pattern. One has to do with operations: Shouldn't there be more dedicated TOFC/COFC trains? Shouldn't they be shorter, and operate (like Santa Fe's regular-high-frequency service) by the clock? Wouldn't this ease the workload on overworked terminals? Do operating officers, volume-conscious as they've been trained to be, really appreciate the importance of the pig train, in terms of revenue and assumed-if-not-exactly-proved profitability? Another internal problem has to do with the selling of the service: It continues to be a challenge, with some roads having every salesman sell the full range of railroad

Two forwarders

Rightly or wrongly, there has been a tendency over the years to regard freight forwarders as pretty tough customers. But well they might be—because the forwarder is the middleman, the guy who accepts shipments, consolidates them and buys transportation to move them. In the profit-and-loss sense, he's between what he can collect from the shipper and what he has to pay the carrier. And he's in the business of selling service.

Forwarders have been among the major users of rail piggyback service, along with shipper associations and shipper agents. And they have indeed been tough customers. But what are they saying about piggyback? What do they like? What do they think railroads ought to be doing in TOFC/COFC? When you think about big forwarders, you think about a few companies, and two of them are New York-based United States Freight (since June 3, known as Transway International) and Chicago-based Clipper Exxpress. And this is what they're saying:

—To USF, now Transway International, piggyback "is of prime importance to our freight forwarding companies," with 85% of tonnage going piggyback and only 15% by box-car service. Clipper, also one of the first users of piggyback (dating back to 1958) observes that "since the very beginning our company's growth had been tremendous. In the intervening years, our company has grown in revenue by 635% and in tonnage by 411%. We attribute this growth to the use of TOFC service, as box cars are no longer adequate in serving the forwarders' needs and, in fact, we have not used box cars for several years." In 1974, it might be noted, Clipper Exxpress "will spend in excess of $14.5 million for linehaul transportation. All of this will be spent to purchase piggyback services."

—On growth, both companies are

domestic picture is a still-life.

service and some setting up separate organizations selling TOFC/COFC. Over the years, a number of roads have made structural changes to recognize what TOFC/COFC may mean, and these changes seem to make sense—as Santa Fe obviously thought they did when it set up, effective last Jan. 1, an intermodal traffic section with sub-sections covering TOFC/COFC, international sales and mail-and-express.

If you had to wrap it all up in a couple of comments, "it all" being what TOFC/COFC is and can be, you might quote two people: James F. Nellis, president of Clipper Exxpress: and G. B. Aydelott, president of Rio Grande.

Jim Nellis calls the service on piggyback "second to none." Gus Aydelott calls piggyback "one of the real bright spots today."

look at piggyback—and like what they see

bullish. Clipper President James F. Nellis figures that the growth rate will be accelerated "because of the energy-saving capabilities of the railroads, who can handle four times the amount of traffic as motor common carriers, using the same amount of fuel. Also, the service rendered by the railroads today on piggyback shipments is second to none. If the railroads are allowed adequate increases like other businesses and utilities, enabling them to keep their roadbed and equipment in shape and to purchase additional equipment to handle the increased business, their service will far surpass anything that other modes can offer." Executive Vice President J. J. Oberdorf of Transway International agrees with the forecast: "Over the next five years, piggyback traffic should increase because the service is constantly being improved through creation of more and more piggyback trains. Addition of new trailers and cars as well as addition of more modern yard equipment are also helping the railroads to provide a more efficient and economical service." What about service? "Schedules, reliability and loss-and-damage records via this service show a superiority in comparison with our previous box-car service."

"Service rendered by railroads today on piggyback shipments is second to none. . . ."

James F. Nellis, Clipper.

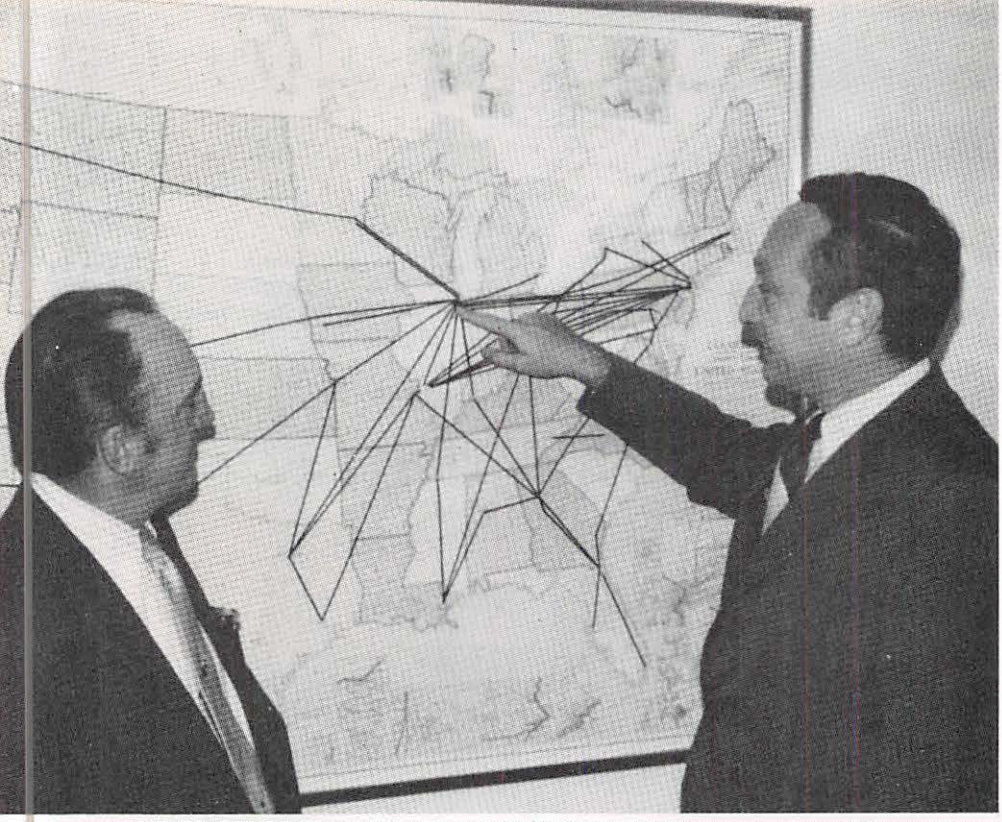
—As to inadequacies in the service, Transway International's Oberdorf notes that there have been a few within the past year, but "some of them cannot be corrected overnight and we do know that the railroads are trying to correct these deficiencies as soon as possible, as evidenced by orders for additional trailers and flat cars and new transit schedules already put into effect."

—How about improvements in service that would lead to greater use? Clipper concentrates on one, Transway International on several. Clipper wants to see development of containers that could be stacked on the flat car, thus increasing the cube from 5,000 cubic feet for two trailers on wheels to 8,000 cubic feet for four containers on an 89-foot car: "More loading space per flat car is a requisite for our growth and is important to the railroad, as it would double the amount of freight that could be handled on a flat car and these cars are in short supply from time to time." Transway International would like to see improvements in several areas: "Shorter trains with faster schedules, more frequent departures, more through routes and through rates, more direct interchange of traffic on flat cars between railroads and elimination of ramping and de-ramping delays with an overall improvement of efficiency of terminal operations."

"We know that railroads are trying to correct deficiencies as soon as possible. . . ."

J.J. Oberdorf, Transway.

One last comment might be made: The energy shortage may change things in this specific traffic area as well as in others, and Transway International has already noted a shift. Its first-quarter net hit a record high, on a 28% boost in revenues, and the fuel situation "which caused some shippers to divert quantities of long-haul traffic to rail/forwarder service contributed to the sharp rise in forwarder revenues and income."



MEN-IN-THE-MIDDLE are Curtis D. Buford (left) and Sheldon Landy, as railroads move into a new growth period in piggyback. It's their job—Buford's as president of Trailer Train, Landy's as director-development planning—to make sure that flat-car supply and distribution come out equal to demand. The map? That's the U.S.—with the increasing number of dedicated TOFC/COFC trains marked on it.

TOFC/COFC hardware: TTX plans for tomorrow

In putting piggyback's future on the right track, software—marketing, pricing, scheduling and so forth—will play a major role. But so will hardware—in terms both of the quantities of flat-car and trailer/container and terminal-handling equipment made available and of the quality of that equipment.

To put it another way, all the promotional work that can be developed won't accomplish a thing if railroads and TOFC/COFC users continue to be plagued by equipment shortages or if fast and reliable line-haul schedules are counter-balanced—offset—by slow and inefficient terminal performance.

At this point, the equipment-supply situation seems to be straightening itself out, thanks mostly to heavy equipment orders by Trailer Train, by major trailer leasing companies and by a number of individual roads. The terminal-handling situation remains something else again.

On the equipment side, Trailer Train has been working for many months to devise better forecasting techniques. Of course, TTX makes periodic surveys of its owner roads, it watches the trailer market closely, and it draws on years of experience for insights into what may be happening. Now, however, TTX is also using a forecasting formula based on six commodities—commodities which are susceptible to piggyback and highway movement: Food, plastics and rubber, furniture, electrical machinery, metal products and automobiles (the last not because autos move by TOFC but because auto production and movement figures are indicative of activity in many related areas).

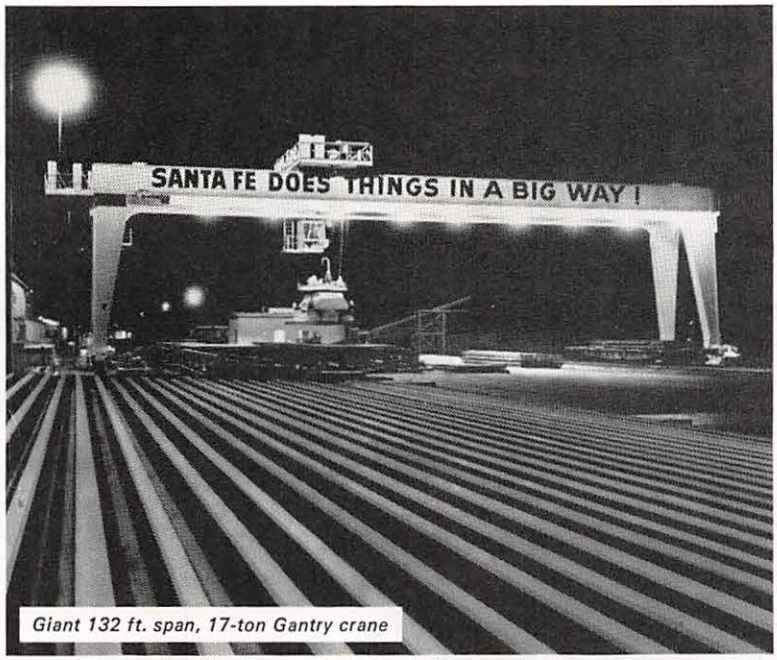
● **Share, plus.** Currently, says Sheldon Landy, director-development planning, the formula points to a rather modest growth for the year for the commodities covered. Why, then, has piggyback growth continued to be more than just modest? Mostly, Landy believes, because railroads—by their own actions and because of problems besetting highway-haulers—have succeeded in capturing a greater share-of-market for the traffic that is moving.

(Railroads, it should be noted, are also making better-than-ever use of TTX cars. Average car-miles per car-day hit 178 last year, up from 176.7 in 1972 and well ahead of the recent-year low of 167.4 in 1970. Meantime, loadings figures show an average of 1.73 trailers/containers per flat car, and that's not bad either, considering that there are still a fair number of single-trailer cars in operation.)

With the agitation from motor carriers for greater efficiency—for which read double-bottoms and bigger trailers—tomorrow may present a different set of problems. Here, too, TTX thinks it's ready. Its intermodal equipment can be readily adapted to handle the smaller trailers now used in double-bottom service, three to a flat car. And, while Trailer Train research indicates no great demand on railroads for the 45-foot trailer, still, just about half of its intermodal fleet—or about 20,000 cars—will be capable of pairing a 40- and 45-foot unit by the end of '74. (Most users are inclined to believe that the 40-foot box will be the basic unit for years to come, with railroads estimating that even 10 years from now four of every five trailers in piggyback service will be 40-foot.)

In its forecasting, Trailer Train generally practices what might be called "flexible conservatism." For instance, Trailer Train President Curtis D. Buford calls attention to major shifts taking place in the economy: There are, he says, "very sound reasons for believing that the economy will remain strong, and that the services in which our intermodal equipment operates will remain strong. We'll be able to get a better snapshot of the situation later in the year, but currently we're not forecasting need for as great a growth in the car fleet in '75 as we have had this year." This year's program calls for addition of 5,000-or-so cars—but if TOFC/COFC does not show the expected rebound from recent softness, it's conceivable that TTX may take another look at its program. As Curt Buford puts it, "We do try to be conservative in our forecasting—while at the same time maintaining a posture of being able to react quickly to meet needs."

● **Equipment, now and tomorrow.** How about the technology of TOFC/COFC, present and future? At Trailer Train, that's Director-Engineering and Research Rene Brodeur's field, and there's quite a bit going on in that field. He talks, for example, of advances such as development of the universal draft-gear pocket and design of a low-level flush-deck car (on which production is expected to begin in mid-summer). He describes the current generation of 89-foot car as just about "the most efficient, fat-free structure that can be designed for the purpose for which it's intended." He talks of hitch improvements, including modification of the so-called completely-automatic, knock-down/pull-up hitch in which there will be a manual kingpin unlocking at the unloading point, along with the installation of an auxiliary lock which will snap into place automatically while the



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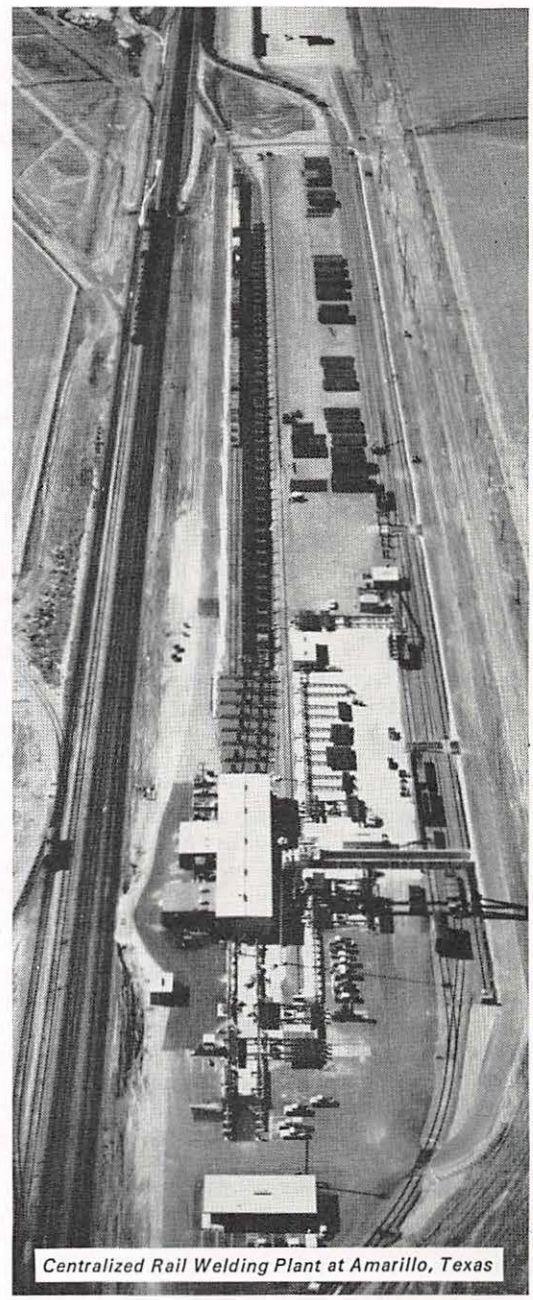
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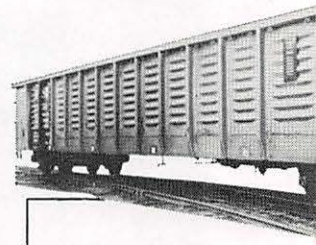

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loading operation is taking place.

Brodeur also sees the need for an improved truck. "A number of premium trucks have been tried on the market over the past 10 years or so," he notes, "but none has really caught on and, actually, they don't offer a complete solution as to what's needed for high-speed, good-riding qualities." Trailer Train, he says, is doing a lot of looking: "We recently completed a series of ride-quality tests, including tests of the new basic European freight-car truck, the so-called Y-25. This was a completely-fabricated truck, built in Great Britain, and indications are that it performed very well—keeping in mind that these were just comparative-run tests over a one-mile stretch of track. This could represent a beginning. But we feel that even this truck could stand further technological improvement."

While its main concern, naturally, is with the car fleet, TTX also tries to keep close tabs on the trailer fleet—not always an easy job, in view of the many ways in which trailers can come into piggyback service. At this point, however, Landy says a recently-completed survey—one taking into account trailers under purchase, under long-term lease and under pool arrangements—indicates that there will be net additions to the fleet this year of approximately 16,000 units. It's a figure that's probably pretty close to accurate: Last year, the trailer-manufacturing industry delivered something over 166,000 units, and the two biggest manufacturers—Fruehauf Division of Fruehauf Corp. and Pullman's Trailmobile Division—estimate that piggyback accounts for about 10% of total business.

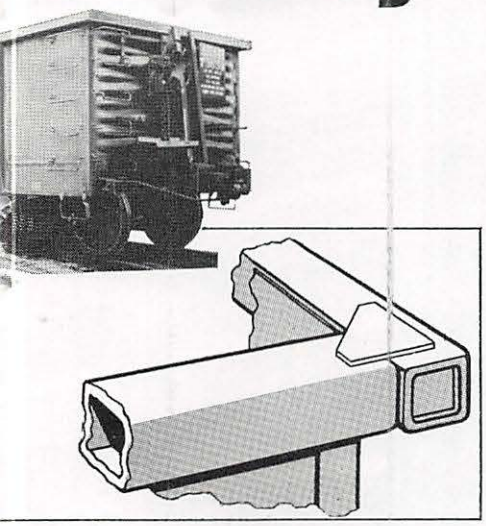
● **Leasing: What future?** Even though a number of roads are getting trailers through purchase, it would appear now that leasing will continue to grow in popularity—at least the two biggest companies in the field, Realco Services and Xtra, think it will. Realco's total revenue fleet now numbers 32,000 units, predominantly trailers; Xtra counts 34,000 units, including trailers, containers and chassis. And both are bullish on the future.

At Realco, President Robert E. Budorick points out that "as capital becomes more scarce and expensive, leasing is an attractive alternative to ownership. In addition, operating companies should only be interested in revenue earned by the unit, not in its ownership, because the unit is used on the operating companies' property only part of the time and this makes the value of ownership to railroads slight." Executive Vice President Karl A. Voth at Xtra voices similar concern about the capital problem: The industry's meager rate-of-return "limits expenditures and wisdom dictates that monies be placed in such things as freight cars, locomotives and track improvements. There must also be improvement and expansion in ramp facilities to expedite piggyback movements, and this too calls for capital layouts." Most railroads, Voth notes, are predicting steady increases in TOFC/COFC loadings—and since piggyback equipment can be leased on shorter-term bases, one, five and eight years, "a railroad can more easily lease equipment based on growth."

Leasing, however, will also cost more. As Karl Voth points out, "a year ago a trailer could be purchased for about $5,300. Now, this same trailer costs $8,000, a 50% increase. Safety features imposed by government can drive the cost even higher. Interest rates are up. And all of these factors dictate an increase in leasing costs." Realco's Bob Budorick also cites the effects of high interest rates and inflation: "If interest rates remain high, in the 8%-to-12% range, and inflation continues near its present rate, costs to lessees will have to increase correspondingly—but leasing will still remain an attractive alternative to ownership."

As for the quality of the trailer equipment going into piggyback service, neither major lessor has major complaints. Xtra's Voth: "I suppose there are some shortcomings in design of

la and now why?



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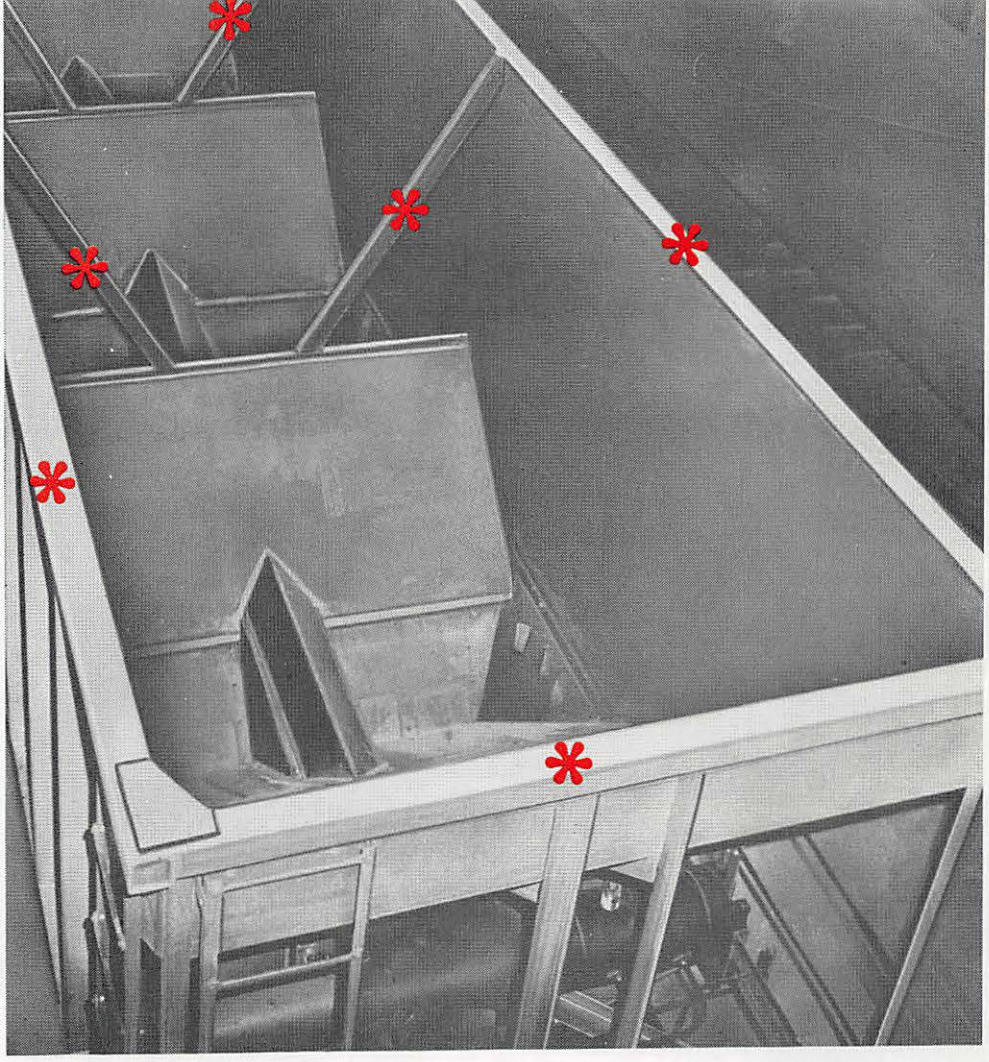


present-day piggyback trailers, but by and large the equipment has held up quite well. Trailers moving on-ground, of course, are subject to other exposures because of the human element involved. And expense in maintaining a fleet is bound to increase, if for no other reason than the inflation cycle as it relates to time and material." Realco's Budorick: "We've developed a specification for TOFC design that is used as a basis for the majority of trailers purchased by the railroads and other leasing companies. This specification has been developed over the years with the major reasons for its development being cargo protection, safety of operation and minimizing of maintenance costs in terms of our service time and cost of repair."

● **The "T" and "C" in TOFC/COFC.** What kind of industry is it that produces this piggyback equipment? It's an industry which, by U.S. Department of Commerce count, covers 244 companies—but only 135 with 20 or more employees. It's an industry in which the 10 biggest companies have roughly 80% of the total market, led (on a basis of registrations) by Fruehauf and Trailmobile—which, together, show about 35% and are the only companies with a 10%-or-better market share.

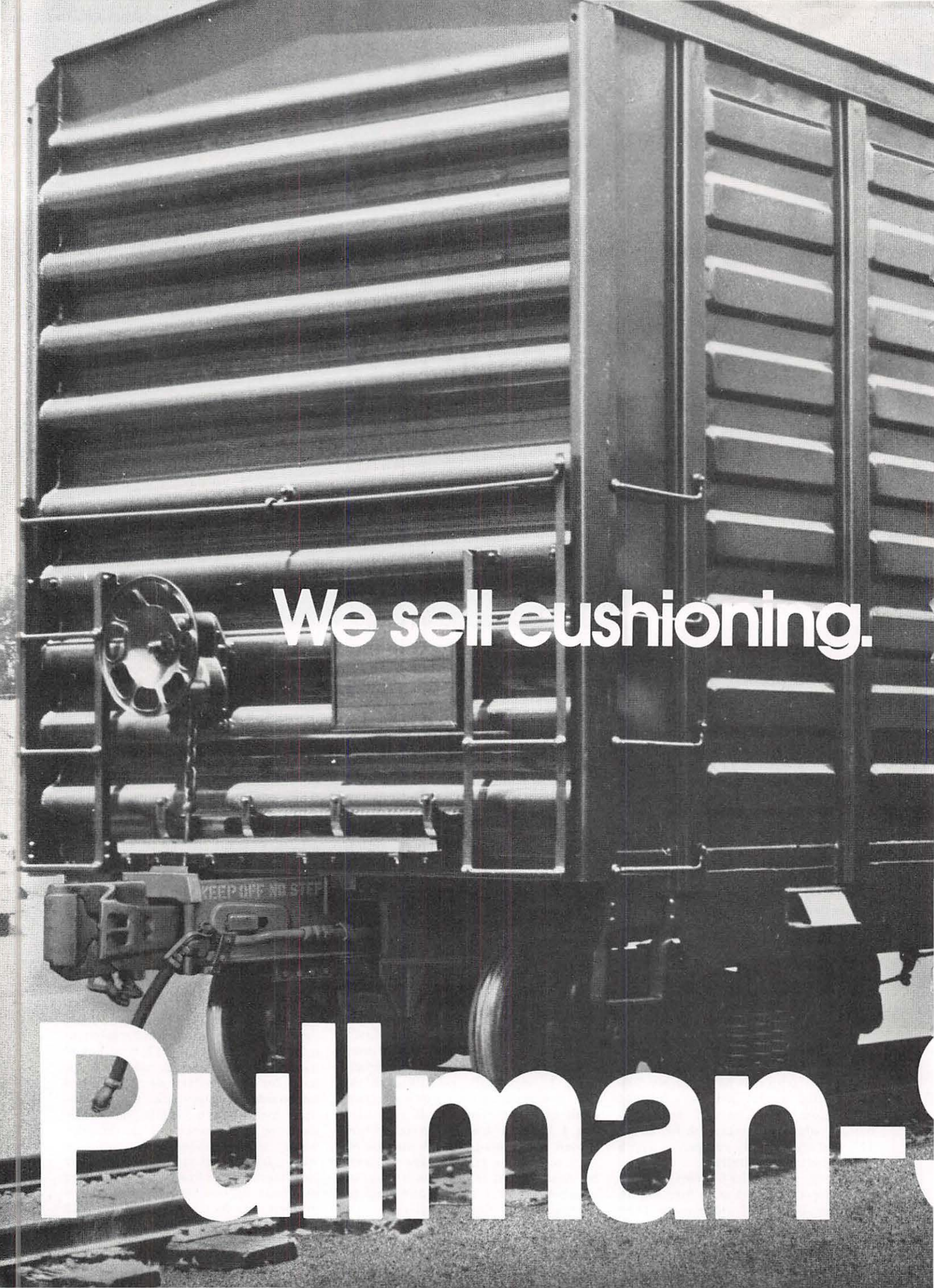
Among the trailer-builders, there's difference of opinion as to how important piggyback may become to their production and sales. Trailmobile tends to the conservative side, pegging piggyback at about 10% of present market and figuring that the percentage may climb only slightly. Fruehauf puts present piggyback-related sales at 10% to 12%, and estimates that they may run 15% to 20% in another five years. Great Dane, a smaller manufacturer but one that is currently expanding production capability, sets piggyback today in the 15%-to25% range and sees it accounting for between 25% and 30% of sales five-or-so years from now.

This year, of course, the whole trailer-manufacturing picture has been somewhat muddied by a certain amount of Mickey-Mouse on the part of the Federal government with regard to imposition of new brake standards on new highway equipment. On powered equipment, standards had first been set for a Sept. 1 effective date, but that was put off later until Jan. 1, 1975, and finally to March 1, 1975. Meanwhile, the deadline for trailer equipment, originally Sept. 1, apparently held through the first postponement on powered-equipment but then was put off until next Jan. 1. With the deadline on trailers now shoved back, some pressure may be off with respect to getting units delivered by Sept. 1—but it remains a question whether manufacturers can add much to schedules in the fourth quarter.

In the meantime, the whole matter of the marriage of rail car and highway trailer has had its up's and down's.

As R.J. Deller, Trailmobile's vice president-engineering, has noted, "In practically every instance of technological innovation which offers the promise of increased profit or productivity, there usually follows a bursting-at-the-seams, mushroom-type expansion of the use of the idea. This expansion often occurs without any great amount of unified, conscious thought, attention or guidance. After a time, experience—particularly if it is painful experience, in a physical or financial sense—points up those areas in which improvement is desirable, or perhaps even mandatory."

Piggyback, Deller notes, "has most certainly undergone its share of growing pains. Starting out with highway-strength vans chained down to ordinary flat cars, we have seen the evolutionary development of rail cars and stanchions into the present-day TTX-type equipment. We have become aware of the need for front bulkheads and rear-end bullboards in piggyback vans. Ultra-hard, high-strength kingpins have come along, but even so we still have kingpin-wear and hitch-jaw-wear problems which are not yet completely resolved. New methods for loading and unloading vans from rail cars have also created new problems for trailer manufacturers with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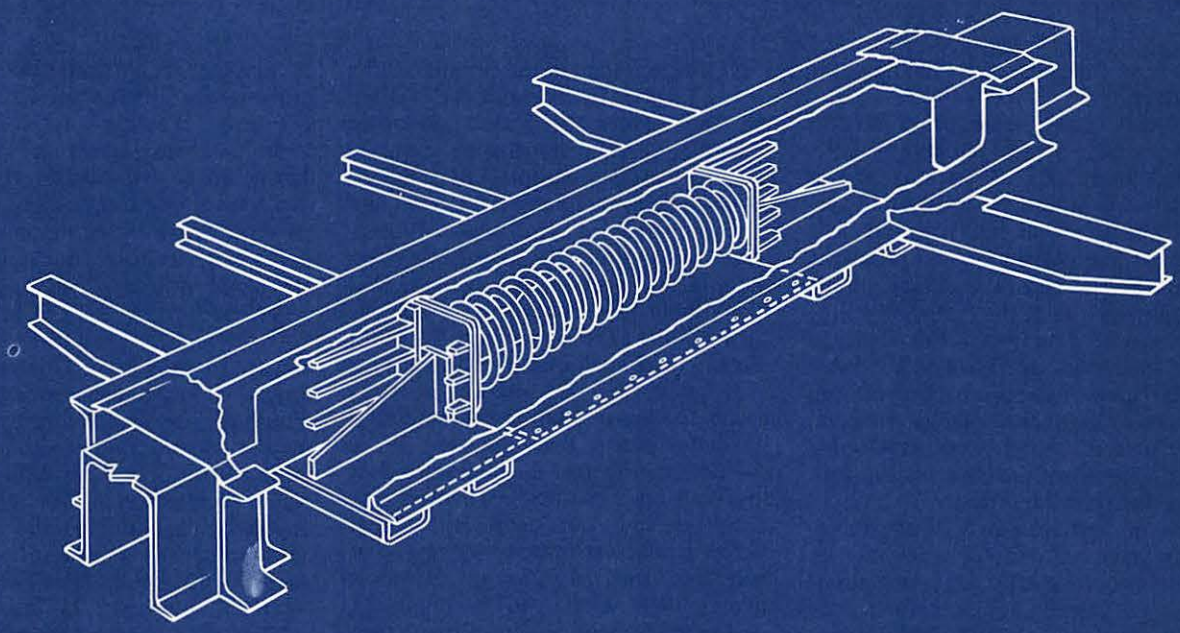

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Terminal technology: Nothing radically new is in sight, but existing equipment will be refined and improved

regard to lift-pads and landing-gear mountings."

At this point, kingpin/stanchion problems—associated probably with differing hardnesses of the kingpin and hitch-jaw metal and with dynamics associated with truck-hunting—and lift-on/lift-off structural-strength problems are perhaps the biggest ones facing both the railroads and the builders. But, they're working on it—and Bob Deller, a recent chairman of the Truck Trailer Manufacturers Association's Engineering Committee, is quick to praise cooperative efforts of the AAR in developing strength specifications and testing procedures for piggyback vans.

● **Pick-up and set-down.** With trailer-builders and railroads occasionally, or more than occasionally, worrying about mechanical loading/unloading, what are major companies in that field saying? What do they see, in terms of how terminals will be operated in the future? What do they think about new technology? How do they answer the question about the effects of machine-loading/unloading on equipment?

First, Marathon LeTourneau looks for the equipping of large, high-volume terminals with rubber-tired overhead cranes and side-operating vehicles such as the LeTro-Porter for smaller yards with lesser volume: "Why? Economics is the answer, and cost-per-lift answers the economic question," says Ron McCune, manager-equipment sales. Howard-Cooper Corp., handling sales, parts and service for RayGo Wagner Piggypackers, looks at things a bit differently: "We believe that more and more ramps will be mechanized," says Division Manager Allen Van Duyn, "since there are obvious operating and switching savings to be made. Also, as containerization moves inland, railroads wanting this business will be forced to acquire the equipment to handle containers as well as trailers. In this respect, side-loaders have an advantage over cranes since they can load and unload just as efficiently and can also move loads away from trackside, stack containers and easily move from track to track. These factors, coupled with their lower acquisition and maintenance costs, lead us to believe that in general, the side-loader will be predominant in the mechanization of terminals."

As for the number of terminals in operation, Marathon LeTourneau says its recent market surveys "show more points opening." Howard-Cooper stays with what has been thought to be the fact about terminals: "The total number of ramps is being steadily reduced due to regional consolidations."

New technology in the terminals? It's not in sight. Howard-Cooper's Allen Van Duyn notes that "we know of no impending breakthrough-type development in handling equipment. However, we do look for a steady refinement and improvement of existing types of equipment." Marathon LeTourneau's Ron McCune says his company believes that "the rubber-tired Straddle-Port and the side-loader LeTro-Porter are the most efficient and economical methods now being used, and we do not see any reason to change from these methods."

Then, there's that question as to whether mechanical loading/unloading devices are "brutes"—whether the charge is true and, if it is, whether there's a need for more gentleness to be built into the machines or for more training to be built into the operators.

Howard-Cooper, Van Duyn says, "finds that our own equipment and our competitors' equipment has been steadily improved. If it's properly operated, we know of nothing built into any of these units that should damage the trailer or container being handled. We also see a great improvement in operator-skills and we believe the reputation for excessive roughness is disappearing. Last but not least, trailer and container manufacturers are finally recognizing that their equipment is going to be handled by mechanical loading/unloading devices, and they have strengthened their devices accordingly." For Marathon LeTourneau, McCune points out that "our equipment is manufactured with limit switches controlling all functions. However, regardless of the fail-safe devices that are designed into a system, at one time or another the operator becomes the limiting factor. One cannot over-emphasize the importance of operator training."

● **What cost—and what else?** Another factor in the mechanization of terminals, of course, is cost—in terms of initial capital investment for equipment and of related improvements which may have to be made to the terminal plant itself. A.J. Lien is general manager of Union Pacific Motor Freight and director-terminal operations of UP's Trailer-Container Operations. Recently he talked of possible improvements in equipment design. One concerned improvement and standardization regarding hitches. One concerned redesign of bridge plates to eliminate susceptibility to fouling in loading, particularly overhead loading. And one was that "new techniques should be designed that will permit fast, efficient loading and unloading of trailers without expensive—$150,000 to $300,000—overhead cranes or side-loaders." Trailer Train's Rene Brodeur also dwells on that last subject—also thinking in terms of a medium-expense piece of equipment that could be economically justified for medium-volume terminals or even smaller ones. Several such devices have been developed, he notes, but none has thus far caught on.

In addition to equipment considerations, though, other terminal problems remain to be solved. One is, pure and simple, the problem of space. Many terminals are still "downtown," and they're locked into a situation where there's little or no possibility for horizontal expansion. With growth and hoped-for growth, is the answer to go-suburban, to areas less heavily occupied but still handy to rail mainline and Interstate highway? Is the answer to stay with the in-city terminals but to expand by going up, in city-parking-garage style? Is the answer, or part of it, simply in stopping the use of piggyback terminals as parking lots?

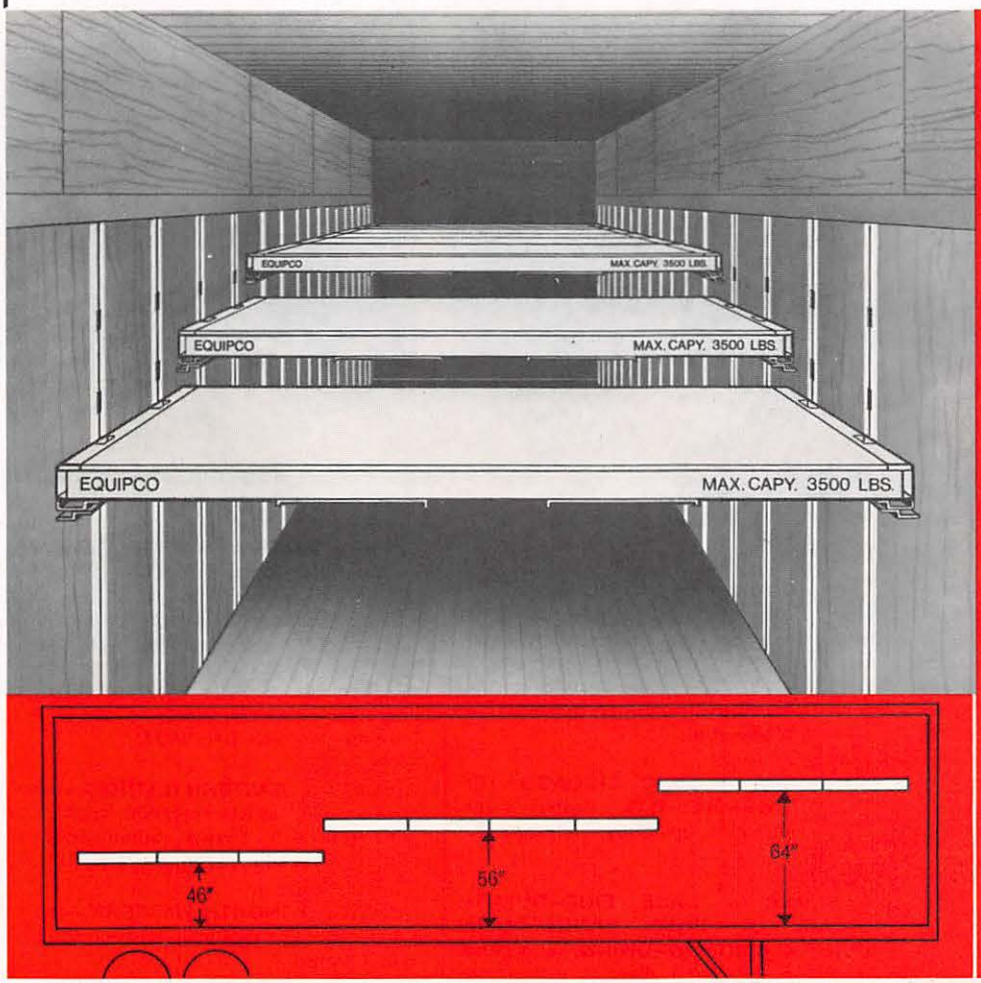
Then, there's always the question as to how many TOFC/COFC terminals a railroad should maintain. Is it worth it, to have a ramp in a small town as a "service"? Or should TOFC/COFC let the motor carrier do his thing and concentrate on hauls of several hundred miles or more, with ramps only at high- and medium-volume points?

How about terminal operation in relation to train schedules? Many terminals today have one or more peak periods in which it seems that everything has to be done at once. But is this smart? Or should efforts be made to promote a more even traffic flow and regular train dispatch, either as something akin to Santa Fe's Regular High Frequency operation or to mini-piggyback-train dispatch. Mini-piggy? Well, why not? Which is exactly the question raised by the joint labor/management committee making up the terminal task force currently in the St. Louis area. If all goes well, there will be a mini-piggy experiment between St. Louis and Kansas City. If it comes off as planned, it will be—as Project Director Vern G. Dyer puts it—"our most dynamic experiment."

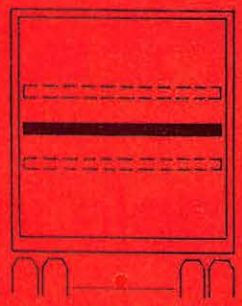
● **Many inputs, one output.** This Railway Age TOFC/COFC survey has included inputs from the major railroads in piggyback, from a couple of long-time and major users of the service, from Trailer Train, from trailer/container lessors and manufacturers, from terminal-equipment manufacturers. All in all, it bears out the headline: "For TOFC/COFC, a brighter-than-ever future—if. . ." ■

FOR RAILROAD PIGGYBACK AND HIGHWAY TRAILERS

NEW Equipco MULTI-POSITION Double Decking System



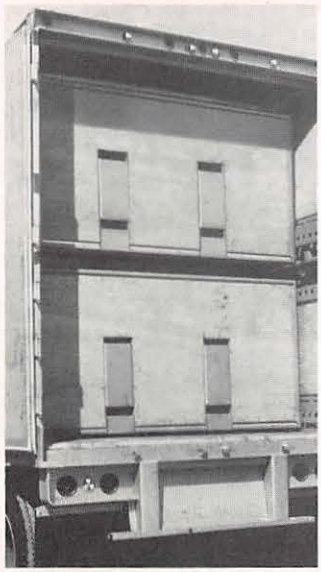
- Increases payloads
- Safeguards lading
- Adjusts to any of 3* different deck heights
- 10 decks per trailer
- Supports up to 3,500 lbs. per deck



Unique multi-position design permits you to position deck at your choice of 3* different heights, depending on lading requirements.

Resting upon integral shelf rail segments, each deck unit can be positioned to provide deck heights of 46", 56" or 64" from trailer floor.

*Additional positions available if desired.



An adaptation of the highly successful Equipco PDQ unit for rail cars, this new multi-position Double-Decking system is designed to increase the payload of railway piggyback and highway trailers. Exceptionally versatile, it permits the double-decking of many commodities that could not be safely stacked before.

The new system consists of 10 reinforced deck units (for 40 ft. trailers) that rest on integral fold-down shelf rails. Each shelf rail segment accommodates one deck unit or pre-stacked pallet.

Exceptionally versatile, the Equipco multi-position system actually costs about half as much as some comparable systems. Yet it is heavy duty in every detail and virtually maintenance free.

Optional bulkhead system shown at left braces off up to 30,000 lbs. of lading (total: 60,000 lbs., top and bottom) . . . and protects trailer doors against damage. Write or phone Equipco for details.

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H.J. Key
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B.F. Mahon
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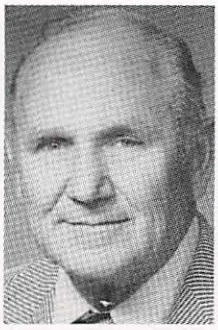
J.F. Christian
Frisco

J.J. Burns
Frisco

T.M. Mabon
Frisco



V.J. Deckard
Frisco

B.C. Davidson
Frisco

R.A. Rorie
Frisco

People in the News

AMTRAK.—**Harry S. Clarke** appointed manager of equipment development, **Deane H. Ellsworth,** manager-mechanical system development, and **Robert F. Breese,** electrical engineer–development. Mr. Clarke was formerly executive vice president, **Safety Electrical Equipment Corp.,** New Haven, Conn. Mr. Ellsworth was research engineer-mechanical systems, **Chessie System,** Baltimore. Mr. Breese was electronics research engineer, **Association of American Railroads,** Chicago.

ASSOCIATION OF AMERICAN RAILROADS.—Several changes have been made in anticipation of installation of the new car information system, TRAIN II (TeleRail Automated Information Network), which is expected to be fully operational by next year at the AAR's Washington headquarters. **G.L. Constantine,** data information liaison officer, promoted to the newly created position of director of data control and analysis. **R.E. Wandless,** assistant manager, data control and analysis section, promoted to the new post of manager of statistical analysis. **Florence Howdershell,** statistical analyst, named assistant manager of statistical analysis, essentially the post previously held by Mr. Wandless. **T.H. Garcia,** project officer, promoted to manager, of data control, a new position.

R.A. Fricker, assistant director, military transportation section, transferred to the Operating-Transportation Division as assistant manager of special studies. **J.F. Bishop,** district transportation officer, San Francisco, promoted to the new post of deputy director, military transportation section, Washington. **D.C. Keller,** district transportation officer, Pittsburgh, succeeds Mr. Bishop in San Francisco. **C.V. Fitzpatrick,** assistant director, closed car utilization section, succeeds Mr. Keller at Pittsburgh. **T.A. Mallett,** assistant manager, shipper relations section, named assistant secretary, Operating-Transportation Division. **J.J. Carroll,** transportation inspector, Milwaukee, promoted to succeed Mr. Mallet in Washington.

BALTIMORE & OHIO CHICAGO TERMINAL/CHESSIE.—**R.W. Foster** named superintendent of operations, Chicago Terminal.

BESSEMER & LAKE ERIE–DULUTH, MISSABE & IRON RANGE–ELGIN, JOLIET & EASTERN–UNION.—**E. Grayson Henderson** appointed director management services, Pittsburgh, succeeding **E. Gard Slocum,** retired because of disability. Mr. Henderson had been comptroller, **Birmingham Southern,** Fairfield, Ala.

BURLINGTON NORTHERN.—**John C. Robinson** appointed financial analyst, financial planning division, finance department, St. Paul.

William T. Luksan, assistant area director, sales and service, Moline, Ill., named area director, sales and service, Twin Cities region.

CANADIAN NATIONAL.—**R.R. Latimer** appointed system vice president-marketing, Montreal. Mr. Latimer was formerly assistant to the president and chairman, equipment committee. For the past year he also served as executive vice president, **Grand Trunk Corp.,** a position he will continue to hold.

CENTRAL OF NEW JERSEY.—**E.J. Grady** appointed assistant signal supervisor, Elizabethport, N.J. **Howard Unger** named to the new position of assistant communications and signal design engineer, Newark.

CHESSIE SYSTEM.—**Milton B. Dolinger** and **George F. McCann** named assistant vice presidents, public relations and advertising department, Cleveland. Mr. Dolinger has been executive assistant to vice president and will continue in charge of news and community relations. Mr. McCann, remains in charge of corporate communications, of which he has been director since Dec. 1972.

CHICAGO & EASTERN ILLINOIS.—**John A. Gasko** named assistant general freight agent, and **Robert S. Drewes,** administrative assistant, both with headquarters in St. Louis.

CHICAGO & NORTH WESTERN.—**John W. Carey** named market manager-food and beverages, Chicago.

August H. Malecha, manager-schedules and blocking, appointed director quality control and operations planning.

DULUTH, WINNIPEG & PACIFIC.—**R.H. Lee,** general agent, Duluth, Minn., appointed manager of the new servo centre for shippers of carload freight located on DW&P lines between Duluth and International Falls. **C.L. Liljegren** appointed carload supervisor and will assist Mr. Lee.

FRISCO.—**J.K. Beshears,** vice president-personnel, named vice president-labor relations. **R.J. Doelling,** manager-purchases and stores, appointed assistant vice president-purchases and materials. **V.C. White** director of supervisory training, becomes assistant vice president-personnel. All will have headquarters in Springfield, Mo.

The Frisco has established a Corporate Affairs Department and the following as-

(Continued on page 44)

What's behind these bulkheads?

The story behind the Evans bulkhead is a story of people . . . the 500 experienced and concerned people who are responsible for the quality design and precision fabrication that are built into every Evans bulkhead.

The Evans people maintain the largest parts inventory in the business, in order to provide our customers with the fastest service parts delivery available anywhere.

The Evans Story . . . **THE PEOPLE STORY** . . . is the reason why, last year, 23 railroads, private car lines, and shippers chose Evans bulkheads for use in their freight cars.

The Evans people make the choice easy, which is why Evans leads the field. If you're in the market for bulkheads, whether buying or leasing, look to Evans . . . where initial quality and continuing service make Evans the logical choice!

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Francis Mueller
P&PU

Charles E. Hellums
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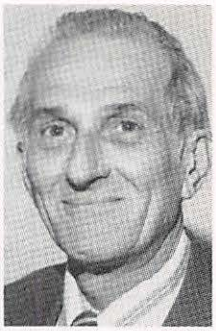
Thomas P. Glaser
P-S



William J. Meder
P-S

Edward C. Sawyer, Jr.
Keystone

Paul L. Wheeler
Safetran

John R. Morrill
Sands Measurement

Louis E. Nelsen, Jr.
Brenco

sistant vice presidents appointed: **M.M. Pomphrey,** public relations and advertising, St. Louis; **H.J. Key,** public affairs, Washington, D.C.; **B.F. Mahon,** public affairs, southwestern states, Oklahoma City, Okla.; **J.F. Christian,** public affairs, southern states, Memphis, Tenn.; **J.J. Burns,** corporate affairs, St. Louis.

T.M. Mabon named assistant vice president marketing-administration, St. Louis.

A reorganization of operating regions and divisions into two districts with six divisions and six terminals has resulted in **V.J. Deckard's** appointment as senior assistant general manager, **B.C. Davidson** becoming assistant general manager-north-south, and **R.A. Rorie,** assistant general manager-east-west, all with headquarters in Springfield, Mo. **G.R. Clinkenbeard** named director transportation services, and **T.M. Galloway,** director car control, Springfield. Superintendents named: **F.E. Wait,** Northern division, Springfield; **R.L. Buchanan,** Southern division, Memphis; **C.B. May,** River division, Memphis; **C.C. Lane,** Eastern division, Springfield; **R.S. Fuller,** Southwestern division, Tulsa, Okla.; **B.J. Lutzenberger,** Western division, Tulsa; **H.J. Lovelady,** Kansas City Terminal division, Kansas City, Mo.; **T.R. Blackwell,** Memphis Terminal division, Memphis; **R.L. Akins,** Birmingham Terminal division, Birmingham, Ala.; **R.D. White,** St. Louis Terminal division, St. Louis; **M.M. Brower,** Springfield Terminal division, Springfield; **W.R. Wallace,** Tulsa Terminal division, Tulsa.

MARINETTE, TOMAHAWK & WESTERN.—Frank S. Sobieralski named general manager, Tomahawk, Wis., succeeding **Jay F. Wise,** who has been appointed manager of facilities planning, **Owens-Illinois Development Corp.,** Toledo. Mr. Sobieralski had been coordinator of inventory control and services, Forest Products Division, Owens-Illinois.

MISSOURI PACIFIC.—John M. Lloyd, president, also elected chief executive officer.

NORFOLK & WESTERN.—Lewis A. Creasy, assistant to senior vice president-operations, Roanoke, appointed assistant to vice president and general manager, Atlantic Region, Norfolk, succeeding **Stewart M. Murray,** named assistant to general manager, Lake Region, Cleveland. Mr. Murray succeeds **Wilson C. Wertz,** appointed assistant to senior vice president-operations, Roanoke.

NORFOLK, FRANKLIN & DANVILLE.—Richard F. Dunlap, president, elected chairman of the board and chief executive officer. **Charles G. Hammond, Jr.,** appointed president, at Suffolk, Va. Mr. Dunlap is also senior vice president-operations, **Norfolk & Western.** Mr. Hammond has been an assistant vice president, N&W for the past six years.

PEORIA & PEKIN UNION.—Francis Mueller, assistant general manager, elected vice president operations-personnel, Peoria, Ill. **Charles E. Hellums,** secretary, treasurer, auditor, elected vice president, secretary, treasurer and auditor, Peoria.

SUPPLIERS

Thomas P. Glaser, assistant vice president marketing administration, **Pullman-Standard division** of **Pullman Incorporated,** has been appointed vice president marketing administration-freight.

William J. Meder has been named vice president of manufacturing-passenger, **Pullman-Standard division** of **Pullman Incorporated.**

Edward C. Sawyer, Jr. has been elected executive vice president, **Keystone Industries, Inc.,** Chicago.

Paul L. Wheeler, divisional vice president and general manager, Minneapolis Division, **Safetran Systems Corp.,** has been elected a corporate vice president.

John R. Morrill has joined **Sands Measurement Corp.,** Dallas, and has been elected a vice president and a director. Mr. Morrill was formerly a senior vice president, Automation Industries, Inc.

Louis E. Nelsen, Jr., has been elected vice president, sales, **Brenco, Inc.,** Petersburg, Va.

Thomas R. Punch has been named director of marketing, **Harris Controls,** Melbourne, Fla. **Lou E. Goetz** succeeds Mr. Punch as director of programs and development. Mr. Goetz was formerly general manager, Richardson Co.

Cecil H. Mayse has joined **National Railroad Construction Corp.,** Atlanta, Ga., as director of engineering and construction. Mr. Mayse has been involved with automatic control systems utilizing millivolt circuits subject to sub-zero temperature readings.

Barber Manufacturing Co., Bedford Heights, Ohio, has acquired the manufacturing and sales rights of the gas fired infra-red rail car thawing equipment from the **Radac Corp.,** Havertown, Pa.

Rolland Tackbary, Chicago branch manager, Freuhauf Division, **Fruehauf Corp.,** has resigned from that position to become president and chief executive officer, **Availco Corp.,** a New York company that leases primarily to railroads in blocks of 100 trailers and up.

Lambert R. Butzen, assistant vice president and director of industrial relations, **Pullman Incorporated,** has been elected vice president, employee relations. **Harris Shane,** vice president, industrial relations, has been elected a vice president until his retirement July 1.

Clarey W. Smith has been appointed director of marketing, Rail Freight Car Equipment, **Hawker Siddeley Canada Ltd.,** Montreal.

INDUSTRIAL TRAFFIC

Robert A. Francis has been appointed director, Transportation & Distribution Department, **Du Pont Co.,** Wilmington, Del., succeeding **Gilbert P. Church,** who retired April 30, after more than 40 years with the company.

Joseph F. Davide has been named general traffic manager, chemical, photo and office systems products, **GAF Corp.,** New York. He formerly was manager-rates.

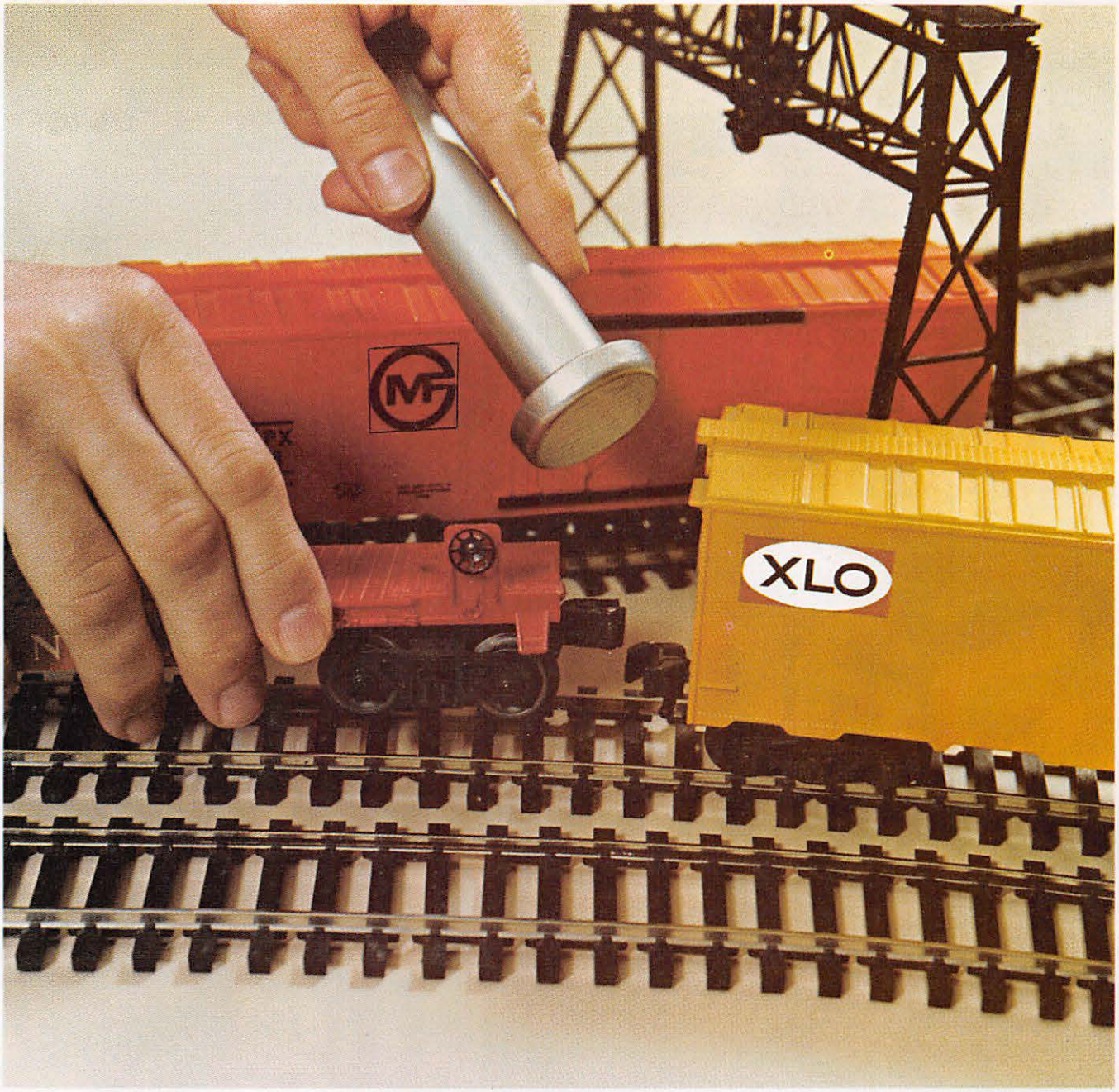
W. David Randall has joined **Alton Box Board Co.** as traffic manager, St. Louis, Mo.

E. Kenneth Bowers has been appointed assistant to vice president for corporate transportation and distribution, **Combustion Engineering, Inc.,** Stamford, Conn.

OBITUARY

Herbert J. Lobb, 64, assistant vice president-marketing, **Reading Co.,** Philadelphia, died June 2 in Abington Memorial Hospital after a long illness.

David F. Woods, 78, retired general freight sales manager, **Chicago & Eastern Illinois,** died May 30 in Bethesda Hospital, Chicago.



Bravo!

Thanks to the proven, maintenance-free performance of our F-Pins, the rail-car ownership is demanding "more" as never before. And we couldn't be busier because of it. More than 10,000,000 F-Pins have taken their place on the "front lines" of America's resurging railroad industry. For that we are proud. In return for this great acceptance, we shall continue to apply our total manufacturing and quality control capabilities toward helping railroads roll smoothly ahead. Railway Products, 443 North Ave., Garwood, N.J. 07027.

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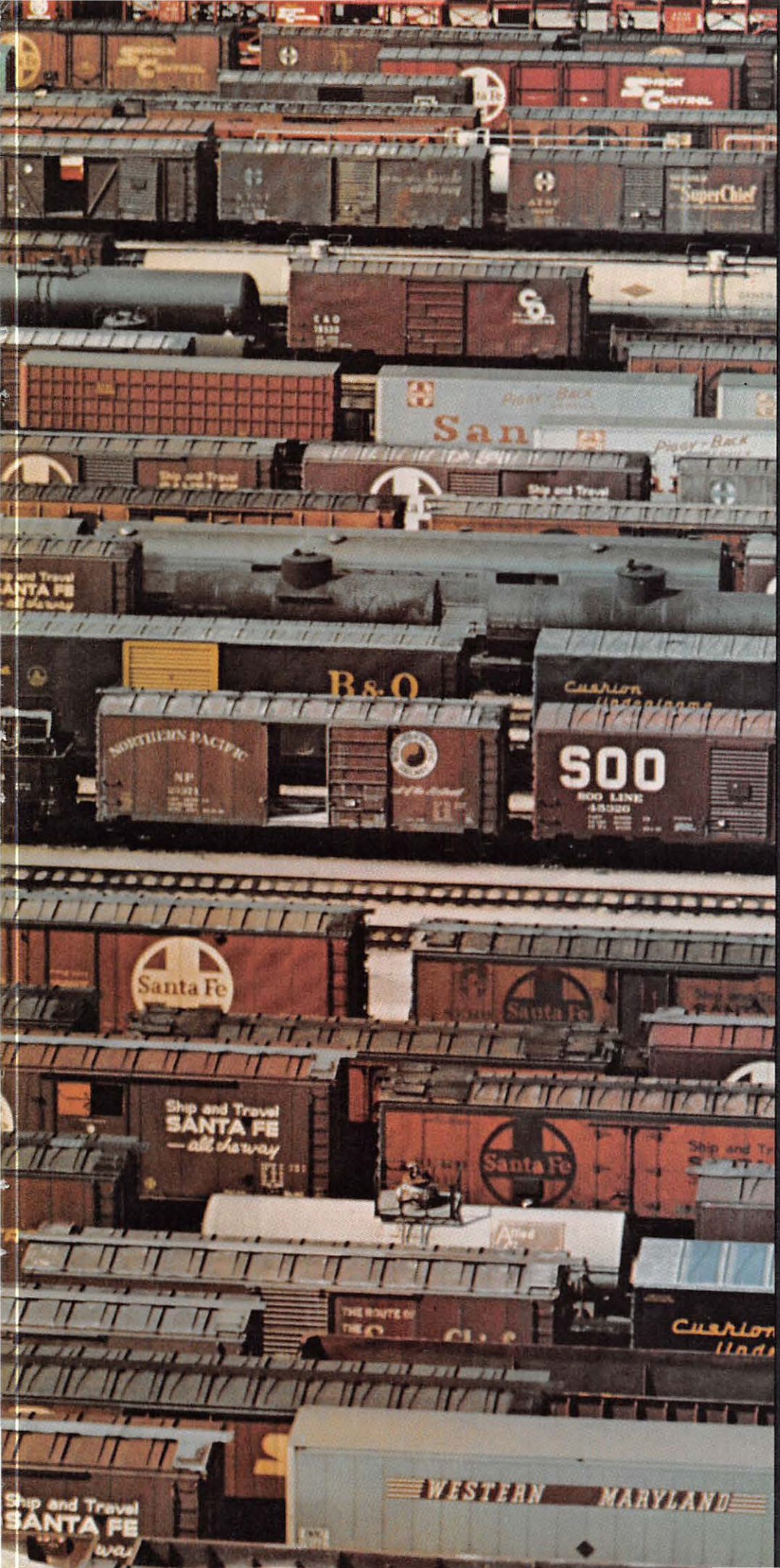

More than 50% of today's metal shoe shipments are high phosphorus

Some 39 railroads have now standardized on high-phos for freight cars with metal shoes. There are approximately 7 million of them in service today. And the demand keeps growing! Abex alone is shipping 350,000 of these new shoes each month.

Samson Shoes are replacing old-style metal shoes because railroads have found them superior. First of all, Samson Shoes wear longer and this means slashing the cost of brake shoe change outs. They give improved train control, shorter stopping distances, and better wheel performance because high-phos and composition shoes, with compatible stop distance curves, will better share the braking load. And a third big advantage of Samson Shoes is minimized sparking.

No matter how you look at it, you're ahead with Samson performance. That is why so many railroads have now standardized on Samson. If you haven't tried them yet, do it now. Give them a real test and see for yourself. Call your Abex representative.

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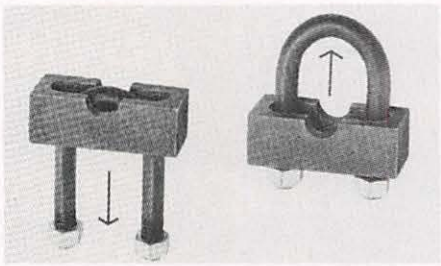
New Products Report



Heavy-duty floor tie-down has high-strength cast steel body

A new heavy-duty floor tie-down for chain binders has been introduced by Cargotrol Corp. Called model 56-200, it has a high-strength cast steel body with a heat-treated alloy steel "U" bolt. The tie-down comes completely ready for welding to metal framing of trailers, bodies and containers. It provides a flush, uninterrupted floor surface when not in use, and an easy-to-use, highly secure facility to lock pads in place to prevent cargo shifting.

Circle 60 on reader service card

Lift table used for car maintenance

Cleaning, painting, and replacement of heavy equipment such as air conditioning components can be facilitated with Southworth Machine Co.'s LSH08-112 lift table. The unit is mounted on powered flanged wheels and operates on rails installed beside the tracks where cars are maintained. The table has a 1,000-lb capacity and equipment may be loaded at low level and then raised to the proper height for unloading on the car. Workmen can then use the table for a work platform.

Circle 61 on reader service card

Glasbord paneling available 9 ft wide by 40 ft long

Glasbord fiber glass reinforced plastic paneling is now manufactured in widths up to 9 ft by lengths up to 40 ft. The Kemlite Corp. product permits seamless construction for interior walls in railcars, refrigerated trucks, trailers and containers. The new concept makes installation faster, requiring fewer fasteners and produces strong, durable walls. There are no seams to suffer heat loss as in regular construction. Cleaning is easier with no seams to catch and hold dirt and grime. The new panel has the same physical properties as standard Glasbord flat panel manufactured by Kemlite since 1964; it carries USDA acceptance for use in Federally inspected vehicles.

Circle 62 on reader service card

Starting battery has extra volume of electrolyte

The General Battery Model HR2700 has an extra volume of electrolyte. This contributes to increased electrical capacity and enables the unit to go a minimum of a year between watering intervals at the 74-volt regulator setting. This latest addition to the Hi-Roller starting battery line has a 5-second rating of 2700 amperes, or 420 ampere hours at the 8-hour rate. The battery is designed to require less current for maintaining its fully charged condition.

Circle 63 on reader service card

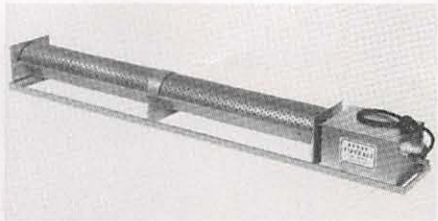
Railcar chocks meet OSHA requirements

Newly developed safety wheel chocks are said to provide greater convenience when loading or unloading railroad cars. The chocks, from Olson Distributors, Inc., effectively block rolling stock; they are instantly attached and removed, are equipped with rail biting tool steel spurs and meet OSHA requirements.

Circle 64 on reader service card

Car-thawing equipment can be easily mounted

Manufacturing and sales rights of gas-fired, infra-red rail car-thawing equipment from Radac Corp. have been acquired by Barber Manufacturing Co. The self-contained Radac units—for



thawing hoppers and panels of railroad cars to facilitate unloading of coal, ore and other aggregates affected by freezing—lend themselves to a variety of mining and tipple operations. They are designed for easy mounting or placement and can be conveniently stored during warm weather.

Circle 65 on reader service card

Adhesives meet need for high-speed, easy application

Adhesives proven as exceptional bonding agents for railcar, truck and auto brake linings are now available from Goodyear Tire & Rubber Co. for additional tough industrial uses where frictional material and metal-to-metal bonding is required. The recently developed line of nitrile/phenolic adhesives—Pliobond 1012, 1014 and 1015—meet rule 66 Federal air pollution control standards and industrial requirements for high-speed, easy application by extrusion, brush, roller or spray.

Circle 66 on reader service card

NEW LITERATURE

NOISE CONTROL. A complete line of Allforce Acoustics' noise control products—to be marketed under the "Soundscreen Systems" brand—is described in a brochure detailing product descriptions, function, application, installation and order information.

Circle 70 on reader service card

TRANSIT SHELTERS. A new four-page, color brochure issued by the Adams & Westlake Co. illustrates the Adlake approach to transit shelters.

Circle 71 on reader service card

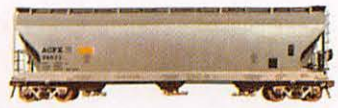
SAFETY FLOOR PLATE. A brochure from AMAX Aluminum Mill Products describes a newly developed aluminum safety floor plate called AMAX Gripdeck, a non-skid, non-sparking floor plate designed to provide improved traction.

Circle 72 on reader service card

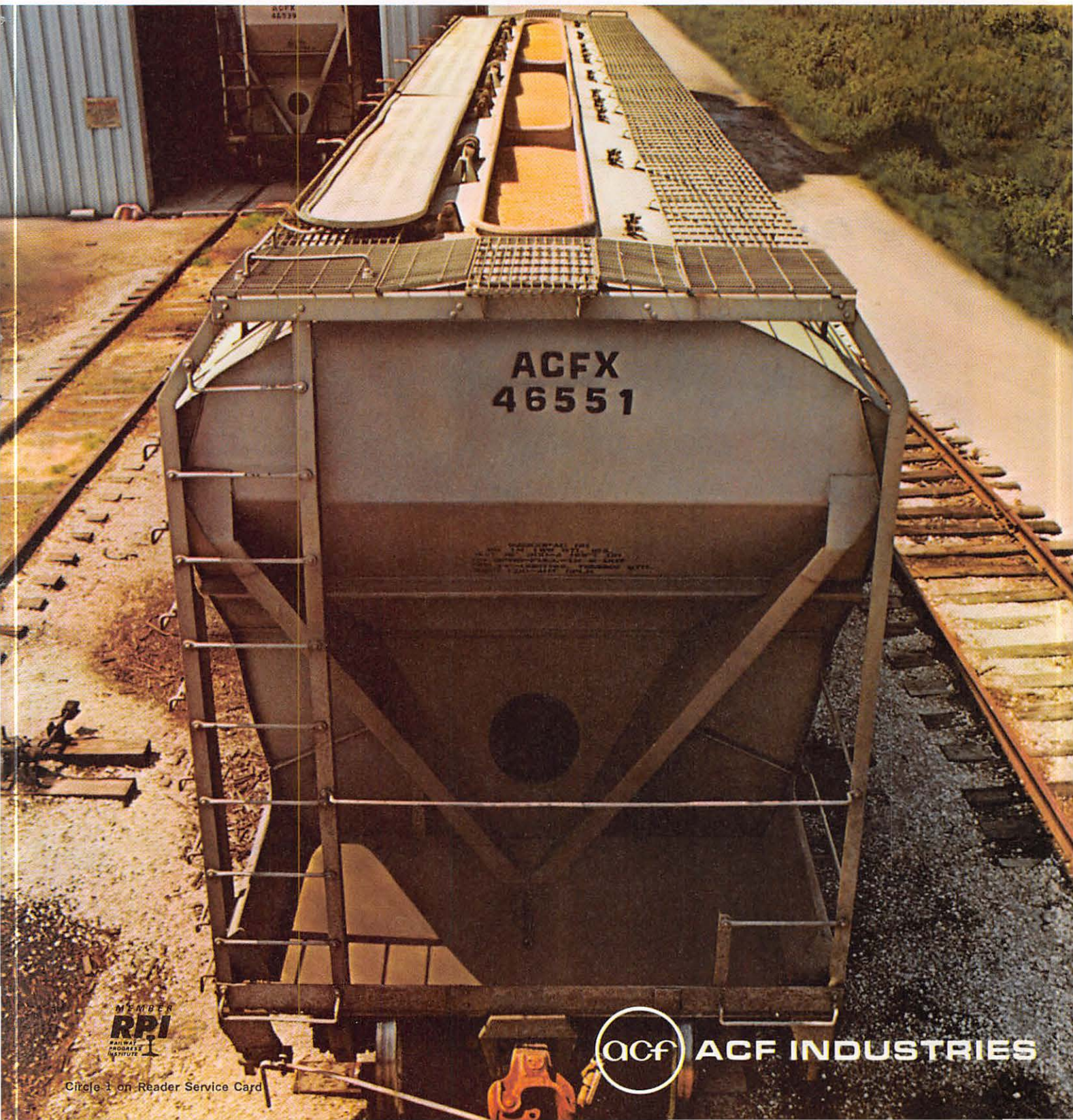
ACF's Center Flow Car fills fuller.

In dry bulk ladings, there's no such thing as a 100% full car. There will always be voids at the ends of the car and where the sides meet the roof. The bigger these voids are, the less profitable the volume of a car is. That's why the ACF Center Flow® Car was designed to minimize those empty spaces.

To get smaller spaces along the sides of the car, the roof of the Center Flow is curved. It conforms more closely to the natural slope of the lading. The spaces at the ends of the car are minimized by placing the hatches close to the end sheets. These design advantages make the Center Flow fill fuller.



You can get more into the Center Flow Car. And isn't that what railroading is all about? ACF Industries, Incorporated, Amcar Division, Main & Clark Streets, St. Charles, Missouri 63301.



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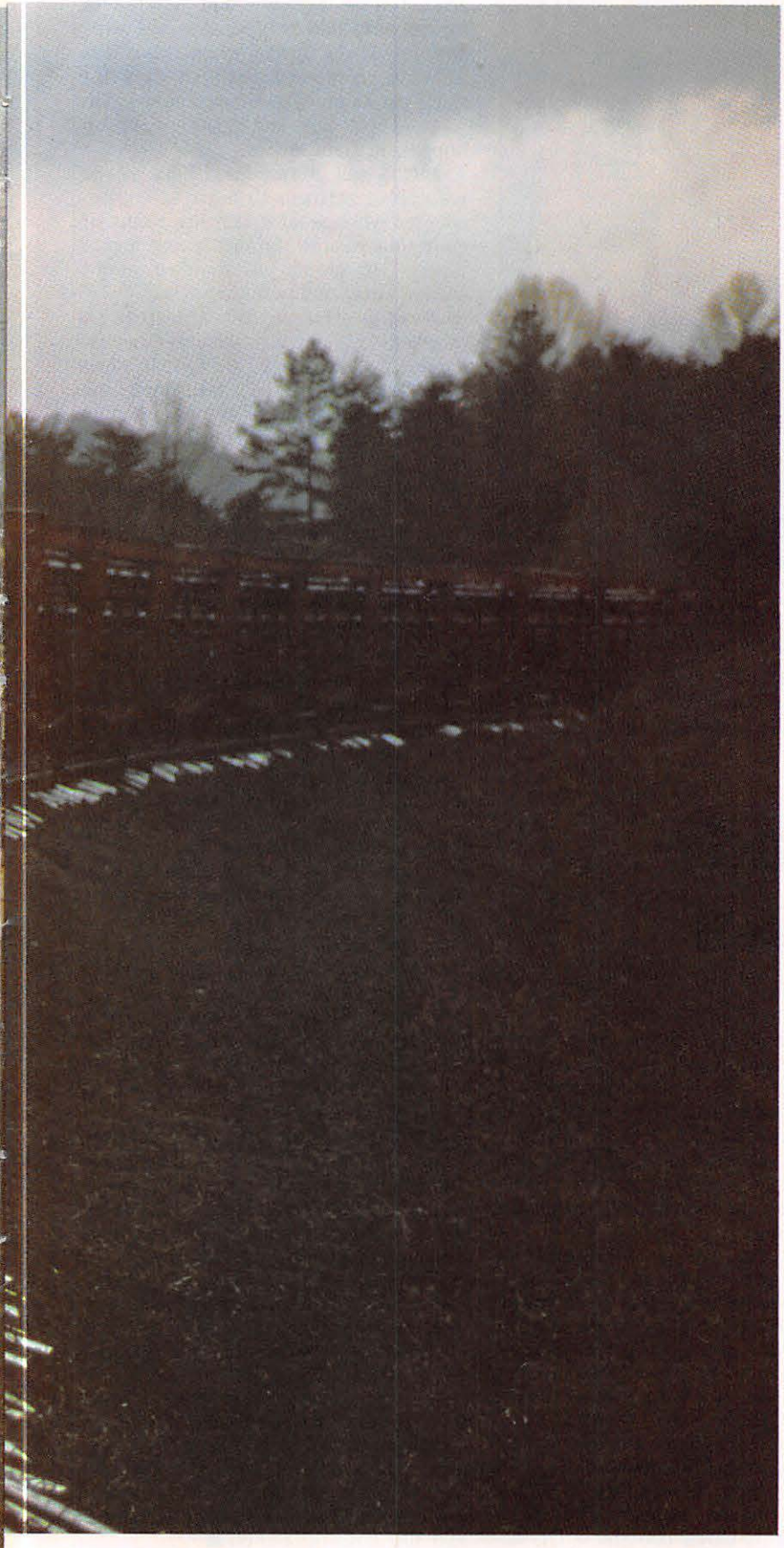
of our clickety-clack track more reliable ride.



By the end of the year, a total of 4,741 miles of our track will have a new kind of rail. Welded rail. Instead of the old-fashioned short lengths that give the familiar clickety-clack at every joint, we make welded rail at our fabrication plant in seamless quarter-mile lengths. Then load it on a special train, take it wherever it's needed, and lay it out like spaghetti. And once it's down, the quarter-mile lengths are welded into even longer lengths.

But this is going to do more than just get rid of the sound of the track. It might just save you some money on freight shipments in the South. You see, welded rail is a lot stronger and more dependable. So we can give even the biggest freight cars—and your shipments—a smoother, more reliable ride.

That's why we started putting in welded rail many years ago. And why it will eventually replace virtually all of our clickety-clack track. It's one more way we're helping to *squeeze the waste out of distribution.*

Southern Railway System, Washington, D.C.

SOUTHERN

THE RAILWAY SYSTEM THAT GIVES A GREEN LIGHT TO INNOVATIONS

P-S 10,000 in red, white and blue—an adaptation of UP's emblem—is loaded at Felco elevator in Mead and epitomizes railroad/supplier involvement in car supply.

Why this car made news in Nebraska

The AAR was reporting its best car supply situation in a couple of years; Nebraska railroads were telling the state legislature's agriculture committee that substantially more cars would be available for hauling grain than a year ago.

And in a typical Nebraska farm town, Union Pacific and Pullman-Standard were teaming up to demonstrate just why car supply for grain traffic promised to be less crisis-ridden than probably it had been at any time in recent memory. At Mead, Neb., many of the 480 residents turned out with government, shipper and railroad industry representatives as the 10,000th P-S "new family" covered hopper, just delivered to UP, was loaded for the first time.

Farmers Elevator Cooperative of Mead put 100 tons of corn through the trough hatch of UP 74444 which was promptly coupled into the special UP train that had run out the 37 miles from Omaha to mark the event.

Since 1968 UP has invested more than $90 million to expand its covered hopper fleet. With delivery next year of the 1,000 more cars that are already on order from P-S, the UP fleet will have grown by more than 5,000 covered hoppers in an eight-year period. Spending on such equipment will then total $113 million.

● **A head start.** William J. Fox, UP vice president-operations, says that all previously harvested grain had been scheduled to be moved prior to the harvest which is now getting under way. Since another bumper crop is expected, UP is busy planning ways to move growing volumes of grain.

"We are more than mildly optimistic about our ability to handle the 1974 crop," says Fox. In addition to its big fleet of covered hoppers, UP relies heavily on its COIN (Complete Operating INformation) computer-assisted car distribution and its use of unit grain trains.

During the 1973/1974 grain shipping season, UP put together seven special trains using less than 3% of its covered hopper cars, which improved car turnaround time by 39% and resulted in savings of 15,000 car-days. Average turnaround for the special grain trains was 11 days, compared with 18 days for single-car shipments. UP also used 1,000 50-ton box cars and 1,000 open-top hoppers in grain service.

In the past 20 months, UP has joined with other railroads to move an unprecedented volume of grain, the result of enormous export shipments and higher prices. UP alone has handled about three-quarter billion bushels.

● **Weather a factor.** "We anticipate no problems in moving the 1974 wheat harvest," says Jack Bowen, general superintendent of transportation. "However, weather conditions and grain prices during the corn and milo harvest next fall will play a large part in how well railroads will be able to handle grain." Should the fall harvest be delayed by wet weather, followed then by an all-out harvesting effort, "all railroads will be in trouble."

UP has been loading a million bushels of grain daily in its covered hoppers in recent months. The fact that such cars hold 3,500 bushels each, compared with 2,000 bushels in a box car, gives UP's growing covered hopper fleet added significance. W.P. Barrett, vice president-traffic, notes that in addition to looking at its traditional grain markets, UP must now also plan for export movements as a permanent factor.

The P-S car, star of the Mead loading, was introduced in 1972 after over a year of design and tooling efforts. It is produced at the Butler, Pa., facility on two production lines which are capable of turning out as many as 45 cars per day. Stanley Brown, P-S marketing vice president, noted that UP already has reservations for production space on these lines for the early part of each of the next several years.

The 4,750-cubic-foot configuration, which UP uses for grain is but one of a family of cars that range in capacity from 3,000 to 5,800 cubic feet. All are designed to provide a full 100 tons of capacity, depending on the density of the product being shipped. The "step curved arch" roof is designed to accommodate the angle of repose of most commonly carried bulk commodities. Even though there are no carlines to interrupt the continuous loading through the trough hatch, the roof's combination of step and curved segments assures high strength. P-S also went all out to eliminate any interior protrusions that would interfere with easy discharge of ladings. ■

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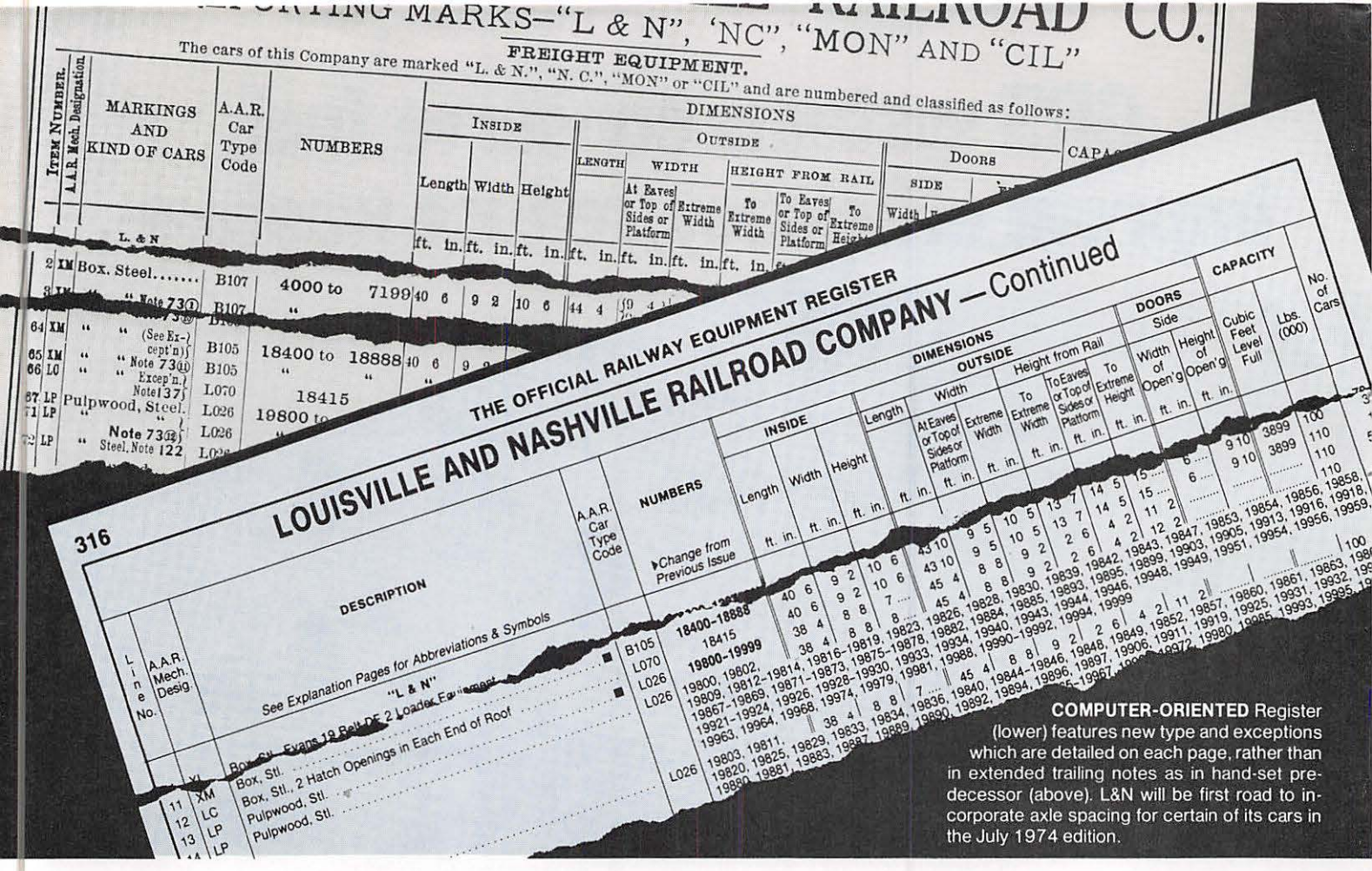
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FREIGHT EQUIPMENT.
The cars of this Company are marked "L. & N.", "N. C.", "MON" or "CIL" and are numbered and classified as follows:
THE OFFICIAL RAILWAY EQUIPMENT REGISTER
LOUISVILLE AND NASHVILLE RAILROAD COMPANY—Continued
316
COMPUTER-ORIENTED Register (lower) features new type and exceptions which are detailed on each page, rather than in extended trailing notes as in hand-set predecessor (above). L&N will be first road to incorporate axle spacing for certain of its cars in the July 1974 edition.

New Register faster, easier to use

The Official Railway Equipment Register, one of the bibles of the industry, has a new look. Changes in this 89-year-old quarterly publication have been basic, rather than merely cosmetic. Certainly the new sans-serif type, the slightly wider page and the virtual elimination of interminable explanatory notes assist railroads and shippers alike in determining more quickly what they need to know about any interchange freight car in North America.

But now there is the potential for knowing even more—most particularly, the "big picture" facets of the North American car fleet. The Railway Equipment and Publication Co., the Register's publisher, has set up a new CarDATA service which is based on the computer data bank that has been established as the key in producing the listing and description of every car in commercial service.

The Equipment Register's data bank is in some areas more comprehensive than that maintained by AAR's UMLER (Universal Machine Language Equipment Register).

● **Eventual coordination is the goal.** When AAR moves to UMLER Phase II, which will probably be after its computerized TRAIN II car movement information system is operational next year, then it is intended that the AAR's computer data will be reprogrammed so that much of the Equipment Register can be updated from UMLER tapes. This will eliminate the duplicate reporting that is presently necessary to provide data to the AAR in Washington and to the Official Railway Equipment Register in New York. Even then, however, it will still be necessary to incorporate detailed car data, information on interline junction points and other information that will have to be generated by the Equipment Register's staff as it always has.

The Register has, since 1912, been designated by ICC order as an official industry tariff. Its data on mechanical designations, capacities, inside dimensions, configuration of side openings and the number of each car type involved are all formal tariff information. So also is the Register's list of junction points.

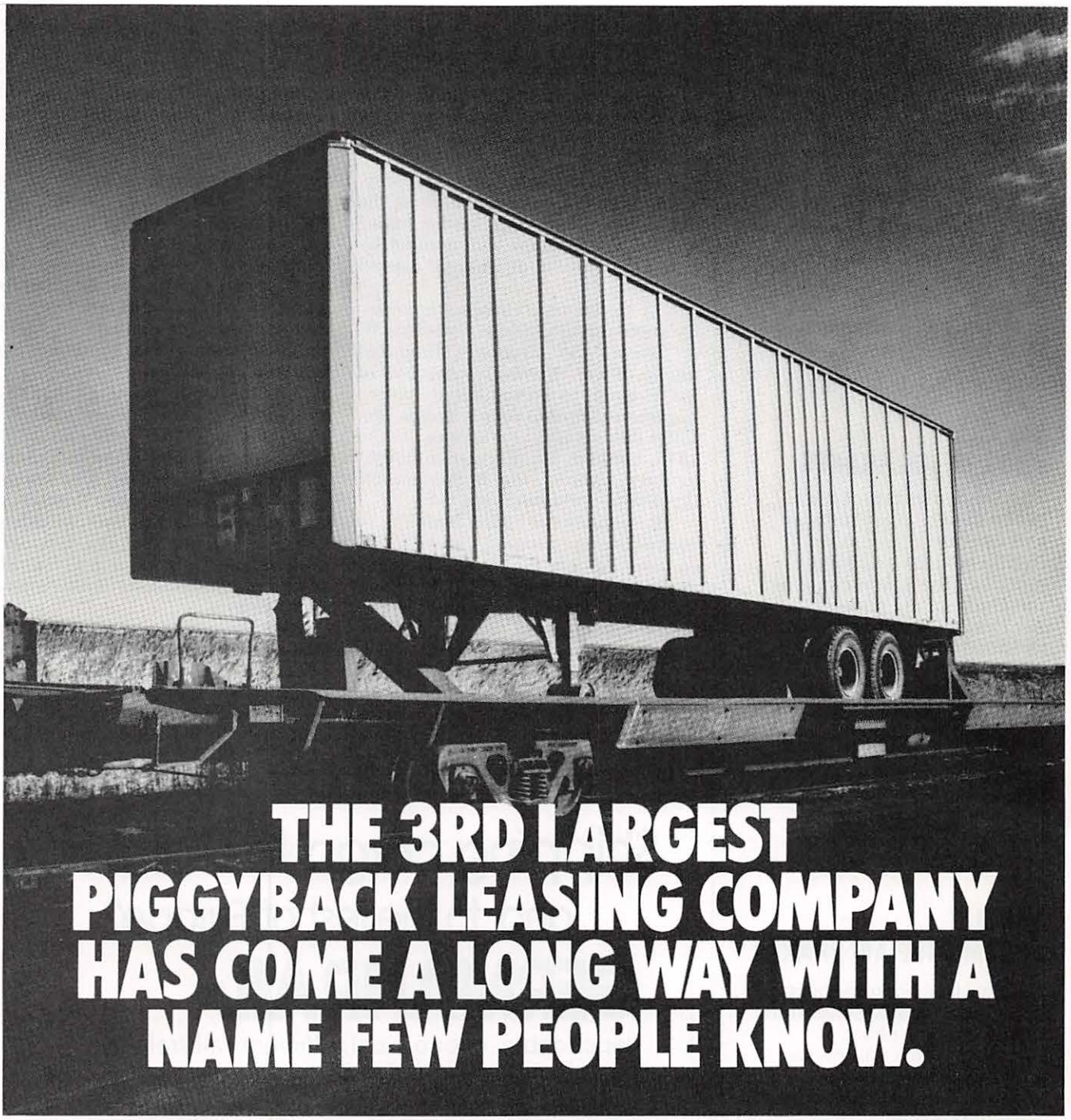
Since 1898, initially under the aegis of the Master Car Builders' Association (predecessor of today's AAR Mechanical Division), the book has had formal industry sanction. Today its publication is closely coordinated with AAR, as well as ICC. The editorial section incorporates the Car Hire Rules of the AAR's Operating-Transportation Division, the Car Service Rules of the Car Service Division and the Classification of Cars of the Mechanical Division.

● **Two audiences.** Railroads and their customers find the information vital. Currently the Register's circulation is about 7,500 copies, split almost evenly between shippers and railroads. After the announcement of the new CarDATA service in the April 1974 issue, the Register got requests for quotes from both of its audiences.

"All or any specific portions of our data bank content can be retrieved and arranged by our CarDATA service according to specifications," says Donald R. Thompson, marketing manager for Railway Equipment & Publication Co. "The end product can be a custom-designed report on computer printout, decks of punched cards, magnetic tapes, or typeset camera-ready pages for offset printing. Reports can be printed and bound if necessary."

Quotations have been made on data analyses for a number of potential customers. Typical of these are:

—A railroad which wanted its car ownership arranged by AAR mechanical designation; then by types, car numbers and with all dimensional data arranged not quite like that which is the Re-



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Hudson would like to share with you the full strength and scope of our equipment and our expertise. We are prepared to provide a full range of services to the rail industry, whether it be in staffing and operating rail terminal facilities or in providing major shippers with the equipment necessary for the prompt and efficient movement of their product.

We hope you'll get in touch with us soon and discover all that lies behind the name Hudson General Corporation.

Hudson General also has several other dynamic divisions serving the transportation industry—Airway Equipment Rental Company, Flight Line, Inc., and General Aviation Services, providing the air industry with a full range of equipment leasing, servicing, maintenance, fueling and passenger services.

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gister's standard. This would be in computer printout form.

—A consultant to railroads seeking a current list of hopper cars by ownership to incorporate in a study being presented to a client. (His observation: "We could use such service again in the future.")

—A shipper, a large lumber company, which wanted a compilation of all the box cars in interchange service having 16-foot double doors and arranged by car owner with full dimensional data on each.

"As the industry changes, the industry's need for data changes," observes W. J. Trezise, the Register's designated issuing officer. Eventual conversion of the Register to computerized typesetting was anticipated fully a decade ago. Until this actually took place late in 1973, however, the Register is thought to have involved the largest manual typesetting operation in the U.S.

"It certainly has added flexibility to our publishing operation," says Trezise, commenting on the new production methods. While the actual data processing and printing operations are no longer the in-house operations they were for decades, the Register's staff has tight control over every phase of the book's production.

While UMLER input is not now being used, the Register is working with AAR's Data Systems Division to establish the coordination of the two data banks that will eventually be necessary. Experimentally the UMLER listings of the car fleets of a couple of railroads have been run against the Register's data bank listing to determine how well they correspond. Recently the fleet of a major private car line was similarly analyzed and showed about 96% "synchronization." Ultimately the AAR and the Register files will have to be in complete "synch" for successful publication of the book. The Register has always been proud of its errorless publication and the initial computer-produced books have continued this tradition.

The Register is retaining a complete computer tape on each issue which will make possible fleet analyses such as were never possible in the past. Some car owners have manually gone through the back issues of the Register to determine fleet trends over periods as long as a half-century. The new computer capabilities will eliminate virtually all the manpower costs involved with such a study.

"We are now free to explore and quote on studies in areas where previously costs would have been staggering," says Thompson, "And what's more," he adds, "we are right now quoting on just such investigations." ■

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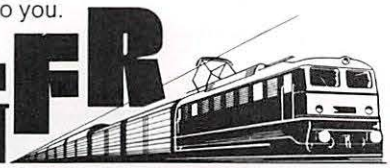

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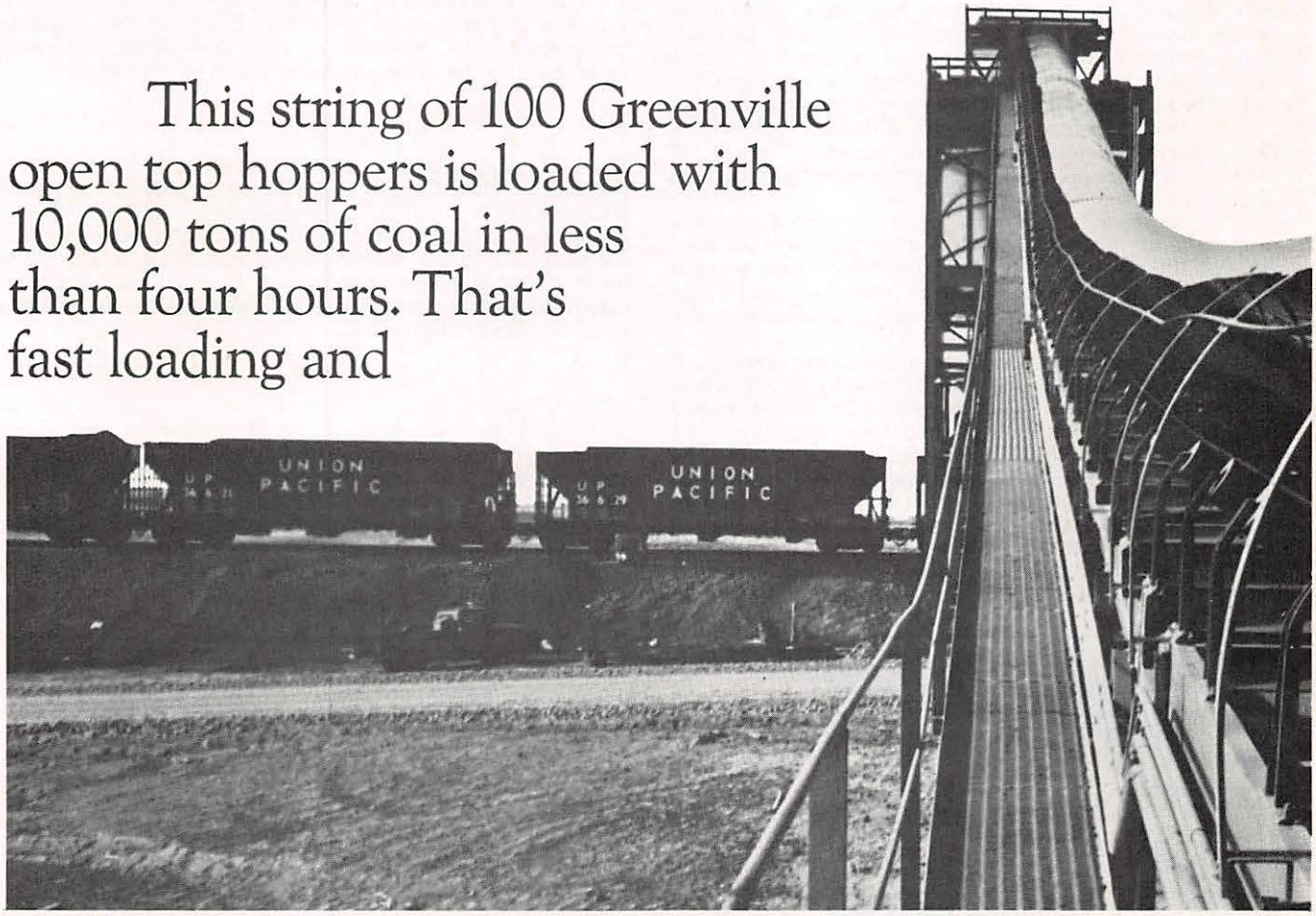
This string of 100 Greenville open top hoppers is loaded with 10,000 tons of coal in less than four hours. That's fast loading and



high impact on the car slope sheets, sides and doors. But Greenville builds its cars tough and well. So, if you're now starting to think about cars, think about the people who build them to stay in service, even if they're in high-mileage, big tonnage, rough, tough service. At today's car prices, it's the only practical way to go about buying cars.

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75 YEARS AGO IN

The Railway Age

(June 16, 1899)

In the government of a great railway, as in that of a political empire, the acclamations to the new king must follow close upon the funeral dirge for his predecessor. Public interests must not suffer from an interregnum in deference to private grief. The chair just vacated by President Frank Thomson is already filled by President A.J. Cassatt, and the vast affairs of the Pennsylvania Railroad Company, with its 100,000 loyal subjects, move on as before, without pause or thought of revolution. When asked if this election involved any changes in policy, the new president replied:

"None whatever. There has been no change in the management of the Pennsylvania company for the last fifty years, and the general policy which has always been pursued will be continued, whatever changes may be made in the officers of the corporation and whether I or someone else fills the office of president."

It is a truly great and remarkable institution of which such a statement can be made in this half century of revolution and reconstruction. No higher tribute than the fact expressed could be paid to the men who laid the foundations and established the policy of the Pennsylvania Railroad when the science of railway building and management was in its groping infancy. Farseeing indeed must have been the men who in 1850 and a little before outlined the general plan of direction and development which should still be pursued in 1900. Wise must have been the policy which such masterful minds as J. Edgar Thomson, Thomas A. Scott, George B. Roberts and Frank Thomson were content to follow, broadening and lengthening, but not essentially changing it, to meet the needs of the world's most wonderful half-century of progress. That the policy of fifty years ago was a sound one attests to-day a company controlling over 9,000 miles of railway, representing with its subsidiary corporations $834,000,000 of capital, and an annual income of $135,000,000; a company which, amid all the wrecks of railways that have marked the land, has never failed to meet its obligations or to make returns to its stockholders, and which has performed its vast mission to the public fully, generously and in a spirit of scientific thoroughness that has raised the standard of railway service throughout the land.

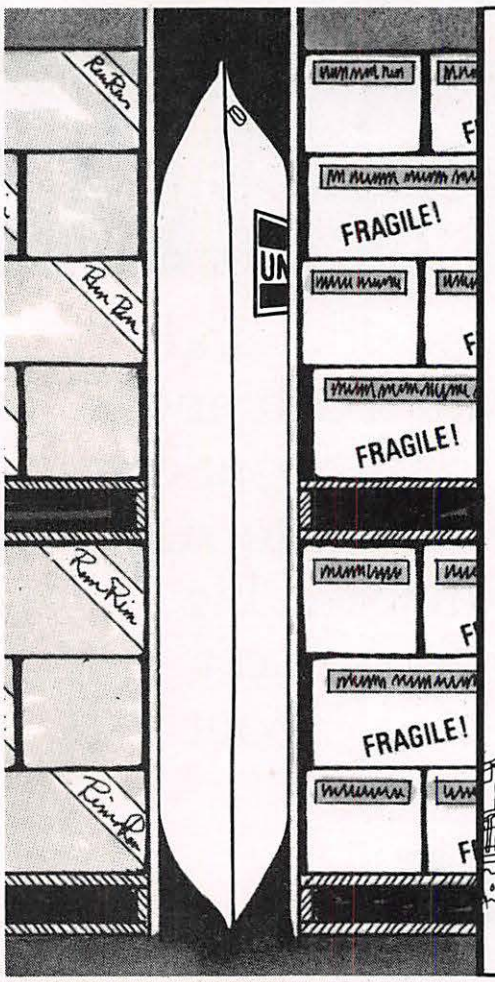
It is to a kingdom of such vast power and influence that on June 9, five days after the death of his lamented predecessor, the directors elevated Alexander J. Cassatt, seventh in the list of Pennsylvania Railroad presidents.

***

The Canadian government announces that it has been decided to refuse to grant any charters to railway companies which desire to build from Pyramid Harbor into the Yukon region until the controversy over the Alaska boundary line has been settled. Sir Wilfrid Laurier states that if it is finally decided that Pyramid Harbor is in United States territory, then Canada will construct an all-Canadian railway, with a seaport in British Columbia.

***

A Texas paper announces that the State railroad commission has existed eight years, and that under its regulations 773 miles of new road have been built in the state, which is equivalent to an increase of 8.8 per cent. This is a beggarly showing for the vast empire of Texas. But for the hostile action of its railroad commission the increase in eight years would have been measured by thousands rather than hundreds of miles.



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The empty containers, loaded with toiletries in Chicago, were given a Fastback ride to New Orleans.

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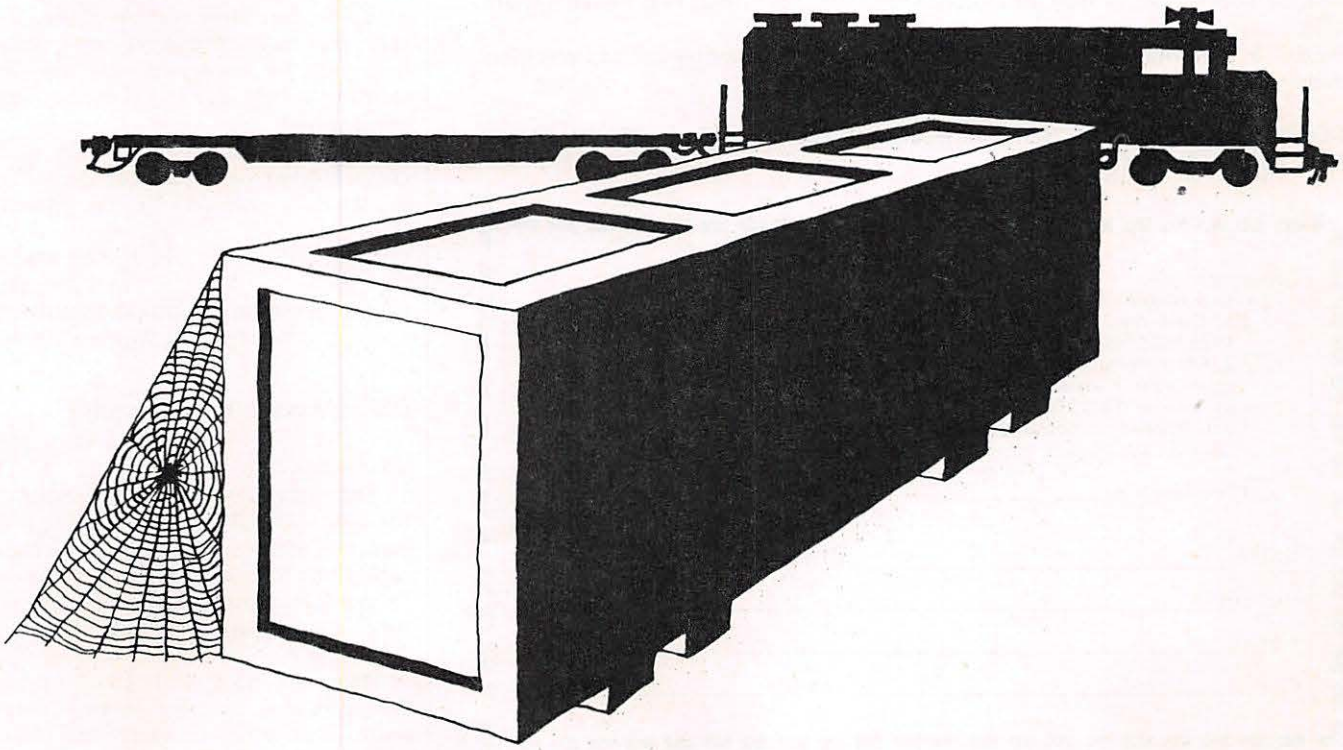

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LETTERS

Freight, Logic, and Fuel

Chicago

To the Editor:

May I compliment you on the special report, "Freight, Logic and the Fuel Shortage" in your May 27 issue? I am sure a great number of Railway Age readers were already aware of the material conveyed in this report, but since it is being distributed to a number of shippers, Congressmen and others, this should be helpful in re-educating those publics about the inherent advantages of the flanged wheel on the steel rail. I think the issue is well done.

John S. Reed
Chairman
Santa Fe

St. Paul

To the Editor:

The "Freight, Logic and the Fuel Shortage" story by George Dusenbury is indeed the kind of message that "voters and the people they elect" ought to know. What's more, Mr. Dusenbury has told the story interestingly. I believe the general public will read it.

Louis W. Menk
Chairman
Burlington Northern

Stamford, Conn.

To the Editor:

"Freight, Logic and the Fuel Shortage," as reported in Railway Age May 27, is a commendable presentation.

First and foremost you have used an entirely different approach tying it in with the pen drawings. Secondly, it is very easy reading and yet one cannot help but be impressed that the fuel shortage is here and is a long way from being solved.

You and your associates are to be congratulated on a job well done. You should be very proud of this presentation.

J. Robert Morton
Vice President
Corporate Transportation & Distribution
Combustion Engineering, Inc.

Black Mesa & Lake Powell

New York, N.Y.

To the Editor:

For many good reasons dedication of the new BM&LP (RA, March 11, p. 9) marks a milestone in railroad electrification but to consider such a system as "a possible prototype for mainline railroad electrification in the West" is dubious.

Only one train, with 18,000 hp on the head end, operates on the 78-mile route. This is not characteristic of any

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—the editors

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- A Executive
- B Operations
- C Purchasing
- D Mechanical
- E Engineering
- F Sig. & Comm.
- G Traffic Mgt.

BUYING INFLUENCE
- H Recommend
- I Specify
- J Approve
- K None

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June 24, 1974

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Circle 22 on Reader Service Card

Western railroad that is a candidate for electrification at today's level of costs. It would appear that the economics of BM&LP operation would have been improved in terms of installed MVA power supply apparatus and energy costs if three lighter trains were used. This would have enabled terminal facilities to operate at higher load factor and lower unit cost.

To meet this high horsepower requirement from one terminal substation, special facilities, including series capacitors and low impedance catenary were needed. The added cost of these features might well have exceeded the cost of intermediate substations as would be installed on a commercial railroad. For example, a 10% reduction in catenary costs (on a figure of $75,000 per mile) would result in a saving of $600,000 over 80 miles of catenary.

Design criteria for an electrified freight line would call for at least two tonnage trains to operate unrestrained under catenary fed from one substation and allow reduced speed working under reduced voltage in an emergency situation for the bunching of trains or having an adjacent substation inoperative. Having only one substation for 78 miles, BM&LP is unique and totally absorbs the electrical capability of the system down to a nominal 50% catenary voltage. This is equivalent to a persistent first contingency fault condition which leaves no capacity for other trains that one would expect a normal commercial railroad to have in a 78-mile section of line.

Thomas B. Bamford

Amtrak at three

Washington

To the Editor:

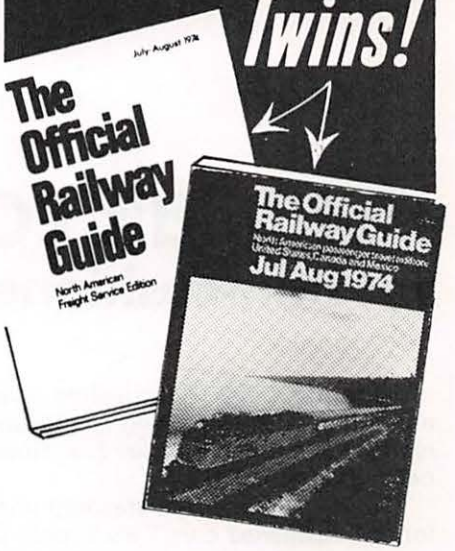
It was extremely gratifying to read your complimentary and, I have to think, fair piece on Amtrak [RA, May 13, p. 18].

We are not perfect, but we are busting our buttons and if friends like you will stay with us, we will come through.

Someone should mention the fact someday that when Amtrak took the $500-million load off the industry—a load which at today's price would be over $900 million—they permitted a strengthening of the rail industry and increased the tax revenues from these companies by tens of millions of dollars per year. Amtrak, at $100 or so million per year in its start-up phase, is a bargain in public policy.

Roger Lewis
President, Amtrak

America's Newest Transport Twins!



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THE ONLY TWO UNCOUPLING LEVERS YOUR RAILROAD NEEDS

Holland's ECON
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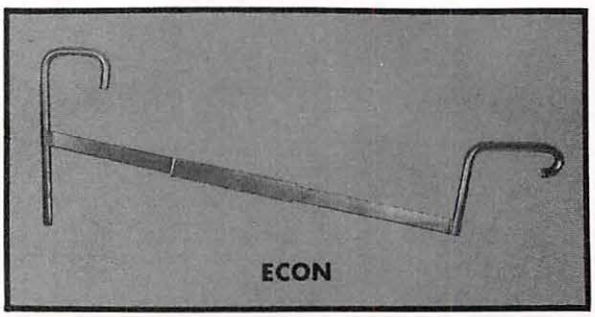
There are 150-200 uncoupling levers for standard draft gear cars ranging from brand name models to Rube Goldberg devices. Now only one is needed: the ECON.

The ECON is the first standard uncoupling lever for non-cushioned cars.* It's already been installed on every kind, including *piggyback and E&F head equipment.*



You can install an ECON in 30 seconds while the cars are coupled and the knuckle is closed. And you can do it without crossing the track, a vital safety factor. Couplers never have to be dismantled. In 95% of installations, the ECON can be applied to existing mounting brackets.

Since the ECON is made of two tough, flat steel bars, "heat and hammer" repairs are done easily in the field. If one of the parts is damaged, you don't have to buy a whole new unit. We'll sell you just the part you need.

Because of the ECON's unique design and low position, passed coupler damage, a chronic problem with conventional levers, has been virtually eliminated.

All in all, the ECON is a money saver. It cuts installation, repair and replacement costs. It performs major surgery on big uncoupling lever inventories that tie up precious capital. It will eventually make the "custom" uncoupling lever obsolete.

* Except cars with rotary couplers.

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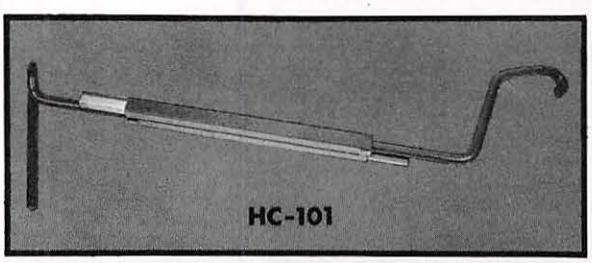
The 101 can be installed in 30 seconds without dismantling the coupler. Because of the 101's low price it's more economical to replace uncoupling levers than to spend shop time and per diem charges repairing or tailoring them to fit. (Average for "bad order" cars is 2½ days, according to industry statistics.)



Like the ECON the HC-101's design and low position just about eliminates the problem of passed coupler damage, which has plagued railroads for years.

Call R. F. Murphy, V.P. (312) 629-8500

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Circle 23 on Reader Service Card

Market Outlook

CARLOADINGS

Loadings of revenue freight in the week ended June 8 totaled 540,116 cars, according to the Association of American Railroads. This was an increase of 49,101 cars, or 10.0%, compared with the previous week, and a decrease of 18,390 cars, or 3.3%, compared with the corresponding week last year. Ton-miles generated by carloadings in the week ended June 8 are estimated at 17.6 billion, an increase of 1.1% above the corresponding week of 1973. (The June 8 ton-mile figure is comparable to the all-time high set during the week ending Nov. 3, 1973.)

REVENUE FREIGHT CARLOADINGS

Commodity	June 8 week	June 1 week
Grain	24,763	20,793
Farm products	9,964	9,420
Metallic ores	48,863	45,914
Coal	97,038	85,169
Crushed stone, gravel & sand	28,714	25,894
Nonmetallic minerals	16,425	16,412
Grain mill products	19,626	16,511
Food and kindred products	22,153	20,021
Primary forest products	24,549	23,409
Lumber & wood products (except furniture)	15,268	14,868
Pulp, paper & allied products	23,587	22,516
Chemicals & allied products	28,418	25,540
Petroleum products	8,478	7,428
Stone, clay & glass products	23,063	20,838
Coke	8,163	8,253
Metals & products	26,296	25,838
Motor vehicles & equipment	25,271	21,680
Waste & scrap materials	17,471	16,146
Forwarder & shipper assn. traffic	11,193	9,622
All other carloads	60,308	55,091
LCL traffic	505	.404
Total cars loaded	**540,116**	**491,767**
Cumulative total, 22 weeks	1974	1973
	11,955,159	**11,909,690**
Estimated revenue ton-miles (billions) 22 weeks	385.1	370.9

PIGGYBACK LOADINGS

U.S. piggyback loadings for the week ended June 1 totaled 26,131 cars (0.6% above the corresponding week last year) and 45,035 trailers or containers (down 1.0% from 1973). Cumulative volume for the first 22 weeks of 1974 is 682,458 cars (up 7.8% from last year) and 1,181,613 trailers or containers (up 8.3% from 1973).

IN CANADA

Canadian railway revenue freight loaded in the 10-day period ended May 31 totaled 7.9 million tons, up 11% from the corresponding period of 1973. Cars loaded increased 9.4% to 131,550

● *Alaska Railroad.*—Placed an order with the Burroughs Corp. for an $800,000, B 2700 medium-scale computer system for installation at Anchorage in August.

● *Boeing Vertol.*—Awarded a contract to NIFE Incorporated for nickel cadmium batteries and battery subsystems for 230 standard light rail vehicle cars. The cars are scheduled for operation on lines of the Massachusetts Bay Transportation Authority and the San Francisco Municipal Railway.

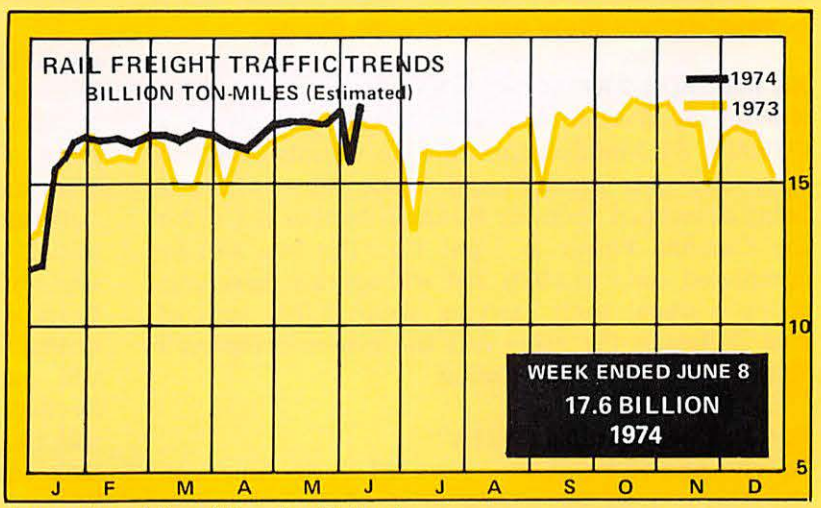
● *Canadian National.*—Will begin work this summer on a four-year plan to upgrade 183.7 miles of track between Gillam, Man., and Churchill. Over $1 million will be spent this year on the plan's initial phases, covering 57 miles of new ballast, replacement of more than 30,000 crossties and bank widening at various places.

● *Louisville & Nashville.*—Will acquire 1,500 70-ton open-top hopper cars from Bethlehem Steel; 400 70-ton box cars and 100 100-ton box cars from Pullman-Standard. Cost of the 2,000 cars is approximately $38.5 million. Delivery of the hoppers is expected to be completed early in 1975. Delivery of the box cars is expected to begin in November 1974.

● *Seaboard Coast Line.*—WABCO's Union Switch & Signal Division has received an SCL order for engineering design, factory-wired control office and field logic systems, and wayside signal equipment for installation between Atlanta, Ga., and Hamlet, N.C. Also, US&SD has received a multi-million-dollar order from SCL for a new automatic freight classification facility to be installed at Rice Yard, Waycross, Ga.

● *Trailer Train.*—Ordered 90 89-ft, 4-in. low-level flat cars from Pullman-Standard. TTX has ordered 3,815 new cars since Jan. 1. As of May 28, TTX cars in service and on order totaled 74,260.

● *WMATA.*—A $1-million contract has been awarded to Texstar Plastics for initial production of interior liners and air-conditioning ducts for 300 transit cars being built for the Washington, D.C. Metro. Prime contractor is Winder Transportation System, a division of Rohr Industries.



Source: Association of American Railroads

Moving Freight

LOUGHNANE HEADS SHIPPER GROUP

The new president of the National Association of Shippers Advisory Boards is John P. Loughnane, vice president of Distribution Enterprises, River Forest, Ill. He succeeds Earl W. Beck, traffic manager, ITT Thompson Industries, Southfield, Mich. First vice president is R.L. Rowley, Shippers Traffic Service, Kansas City, Mo. Second vice president is John H. King, general traffic manager, Georgia-Pacific Corp., Portland, Ore.

MOPAC: ON TOP AND TRYING TO STAY THERE

Missouri Pacific claimed No. 1 ranking among major railroads last year in terms of percentage gain in revenues and net income—and the way things are going, don't discount the possibility of MoPac making No. 1 two years in a row. First-quarter results showed consolidated revenues up from $175 million last year to more than $211 million, with an improvement in consolidated net from $6.8 million to $10.9 million. What's strong? Intermodal traffic, up by more than 30%. Coal, up by close to 100%. Chemicals, up by 44%. Fuel and residual oil, up by 32%. Corn and other grain products, up by 33%. Wheat, down from the export-inflated levels of 1973 but still running 32% ahead of loadings in the more-normal year 1972.

CN SEES BIG TRAFFIC GROWTH IN WEST

Canadian National has embarked on a capital expenditure program that is to see expenditures rise from $300 million to as much as $700 million annually, according to Robert A. Bandeen, president and chief executive officer. Looking to a continuing rise in freight traffic, CN will spend more for cars in 1975 than in 1974. Another possibility is the double-tracking of the line from Edmonton, Alta., to Vancouver, B.C., or the construction of a completely new route between these points.

NW WILL BUILD NEW COAL LINE

Norfolk & Western will start work this fall on a 7½-mile, $4.4-million line in Pike County, Ky., to serve the new underground Leslie Mine which is being developed there by Pickands Mather & Co. for the Carolina Power & Light Co. The line will be completed early in 1976. NW will operate three unit trains a week, each carrying about 9,000 tons of coal, between the mine and the power company's Hyco, N.C., generating station.

FOR LEASING, A NEW "TIGER"

Growth and diversification have led North American Car Corp. into an enlargement of its corporate identity, in which North American and its subsidiaries here and abroad will market equipment leasing and financial services as Tiger Leasing Group—which makes sense, since North American is a subsidiary of Flying Tiger Corp. The Group will cover these service areas: leasing and financing of rail cars, jet aircraft, computers, highway trailers, construction and maintenance equipment and general business and commercial equipment, plus providing chemical repackaging and bulk terminal services. Currently, the Group has equipment valued at more than $1.4 billion on lease or committed for lease. Assets in rail cars are pegged at $590 million, up from $376 million when Flying Tiger acquired North American in 1970.

GEORGETOWN RAILROAD EXPANDING

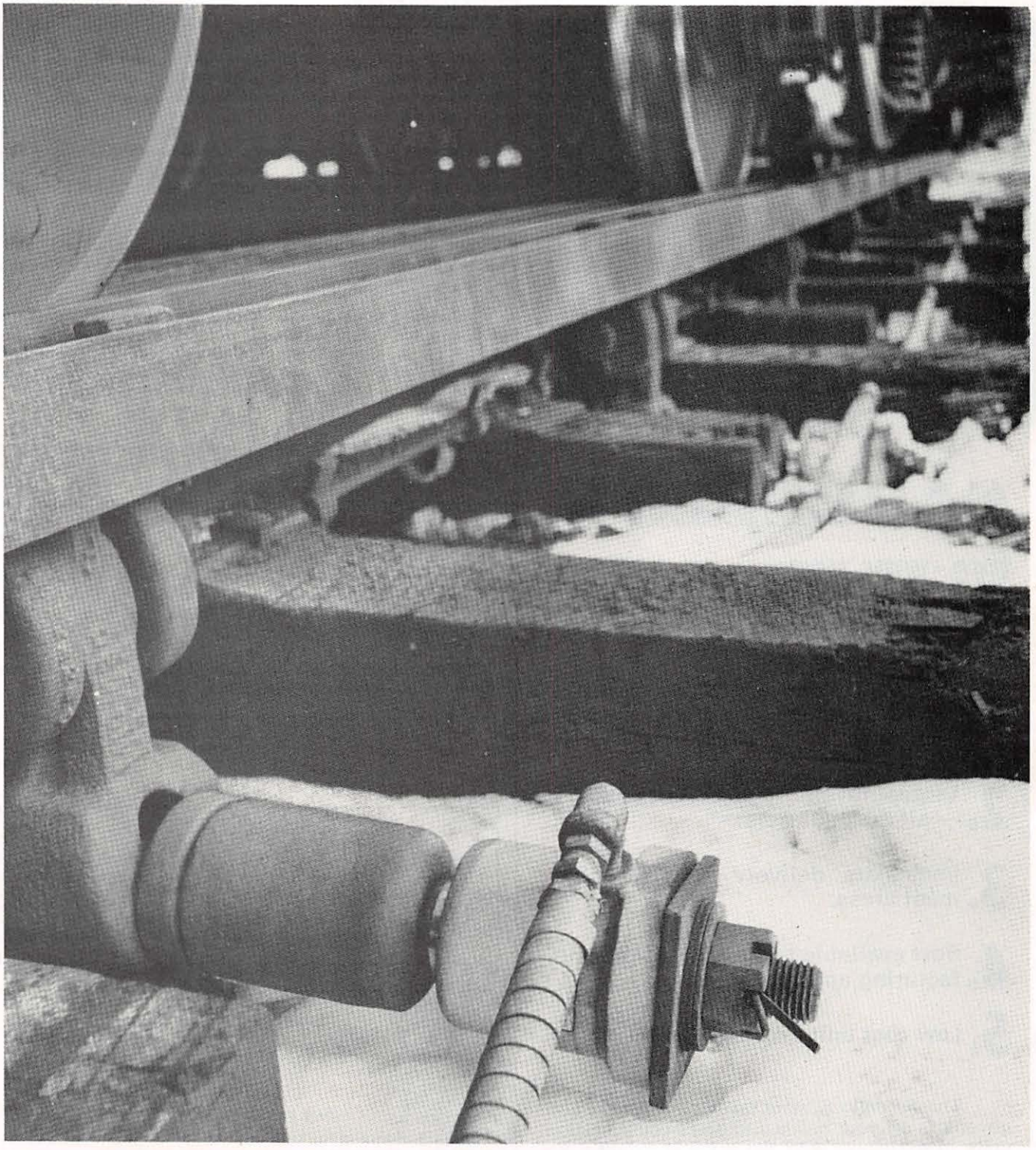
If all goes well at ICC, Texas' Georgetown Railroad will soon be 27.8 miles longer—through purchase of Katy's line between Georgetown and Austin. After the sale, Katy will continue to serve Georgetown as it has in the past, and will reach customers in Austin via trackage rights over Missouri Pacific.

POSTPONEMENT ON H-M ACTION SOUGHT

The Hazardous Materials Advisory Committee is asking for an 18-month postponement in further Federal action involving two dockets dealing with transportation of hazardous materials. HMAC, a TAA-supported and relatively new group on the scene, says that during the 18 months "we would attempt to develop a consolidated and coordinated position that would represent the views of the transportation community, including dissenting views." These would then be presented to DOT "as objectively as possible, with dissenting and affirmative views and all the positions in between." The dockets are HM 103 and HM 112.

BN TO SERVE COAL TRANSSHIPMENT FACILITY

Detroit Edison is turning to Montana for coal and is a participant in the $25-million transshipment terminal that is expected to be started at Superior, Wis., this autumn. Ortran Corp. expects to open this rail/water facility in the spring of 1976 with an initial capacity of 10 million tons annually; eventually, capacity is to be raised to 20 million tons. Orba Corp. and C. Reiss Coal Co. are joining with the utility in the terminal venture. Burlington Northern will move the coal from Montana operations of Decker Mining Co. in 110-car unit trains. The coal will be dumped under stringent environmental controls into Lake boats for movement to St. Claire Shores, Mich.



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Calendar

The 26th **International Conference on Handling Perishable Agricultural Commodities** is set for Sept. 10-12. It will be held in the Kellogg Center on the campus of Michigan State University, East Lansing, Mich.

The 1974 **National Cargo Security Conference and Exhibit** will be at the Hyatt Regency O'Hare, O'Hare International Airport, Chicago, Sept. 4-5. Conference theme: "Joining Forces in Cargo Security—Management Determination and City Campaigns."

Theme of the sixth national **Transportation Data Systems Forum and Exhibit** is "Electronic Systems Serve Transportation." Place and date: Statler Hilton Hotel, Washington, D.C. Dec. 3-4.

"Marketing Urban Renaissance" will be the general theme of the **Sixth International Conference on Urban Transportation** scheduled for Pittsburgh, Sept. 8-10. The conference is sponsored by the U.S. Department of Transportation, the Pittsburgh Urban Transit Council and the Transportation Research Institute of Carnegie-Mellon University.

The fifth **National Conference on Rail-Highway Crossing Safety** will be held Aug. 19-21 at the U.S. Air Force Academy in Colorado Springs, Colo. Topics to be discussed at the conference include priority programs for grade crossing improvement; tools available for establishing these programs; urban rail relocation projects; and new developments in rail-highway grade crossing programs.

The **American Society of Traffic and Transportation** is holding its 28th annual meeting Aug. 21-23 at the Crown Center Hotel, Kansas City, Mo. Theme of the meeting: Transportation and Logistics Challenges 1974-1980.

Transport-Expo 75 will take place March 11-16, 1975 in the exhibition grounds at Le Bourget airport, Paris, France.

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Viewpoint

TOFC/COFC: The returns are still coming in

It seems to be the railroad industry's version of radical-chic today to ho-hum what railroads are doing to promote intermodalism. While there may still be a germ of validity in this theory, one germ does not usually an epidemic make.

To put it another way, any shortfall in railroad promotion of TOFC/COFC can pretty well be blamed on a single word: Economics—with two contexts to be considered:

—On the one hand, there's the data side of economics. Despite everything that's been done with computers and so forth over 5, 10, 15 years, railroads still need a firmer grip on the kind of costing that will permit more precise determinations of profitability. This applies broadly, not just to TOFC/COFC.

—On the other hand, there's the available-dollar side of economics. Perhaps more than any other major industry, railroads have competition for that available-dollar, capital and operating. What part of each dollar of either kind do you throw into piggyback? What part goes for the improvement of other kinds of rail service? What part *should* go to each of the many segments of rail business, each of which may have its own peculiar dollar-demands? Which brings us back, really, to the data side of economics.

Certainly, TOFC/COFC looks good today—long-range especially but also short-range, despite a bit of softening in recent weeks. At the same time, piggyback tends to be more-than-ordinarily susceptible to shifts in the economy—of which there have been and will continue to be more than a few. And complicating these shifts is the fact that not all railroads record the same experience when a general upturn or downturn does occur: Over the past decade, Eastern District roads have had three "down" years in TOFC/COFC loadings, Western District carriers have had but two and in the Southern District the upward trend has been unbroken.

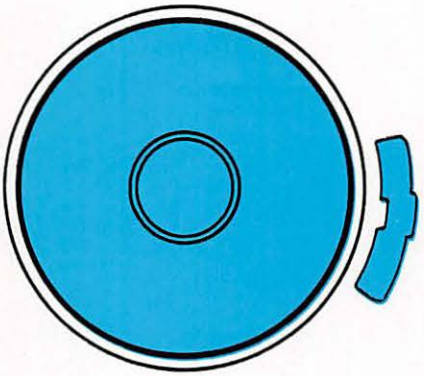
Now, what are the factors at work? Equipment supply, both flatcar and trailer/container? The ability (or inability) of terminals to handle additional traffic? Service frequency and reliability, and the fact that some roads have had to cut back in both areas while others were able to improve their record? Sales effort? Rate levels? The up's and down's affecting all aspects of motor common carriage and private highway carriage? All of these, and more? Sure.

Under these complicated circumstances, a tendency toward conservatism would in no way be surprising. What's surprising, perhaps, is that such tendencies don't exist to a greater degree than they do.

BEFORE ANY FINAL ASSESSMENT, MORE FACTS

If you talk with people deeply involved in the supply end of TOFC/COFC—people at Trailer Train, for instance—you come away with the feeling that not much more can be done with available facts in the area of trying to project tomorrow's TOFC/COFC demand. If you talk with people directly involved in TOFC/COFC on the railroads, you come away with the feeling that (1) the potential in piggyback *is* recognized, but (2) more facts would sure be useful in assessing the intermodal contribution today and the possibilities for that contribution tomorrow.

The enthusiasm is there—and the facts are coming. And the combination looks like a winner.



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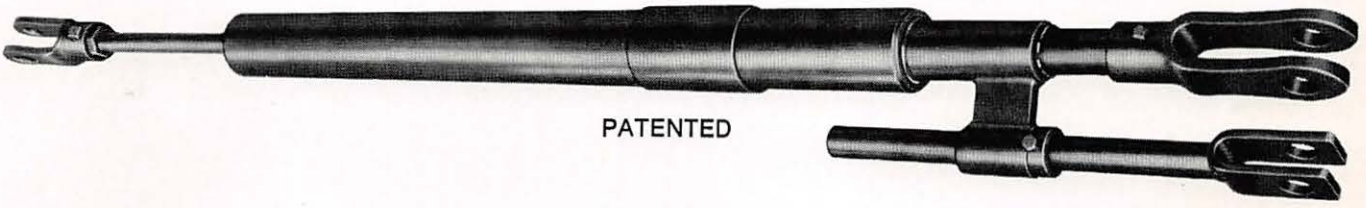

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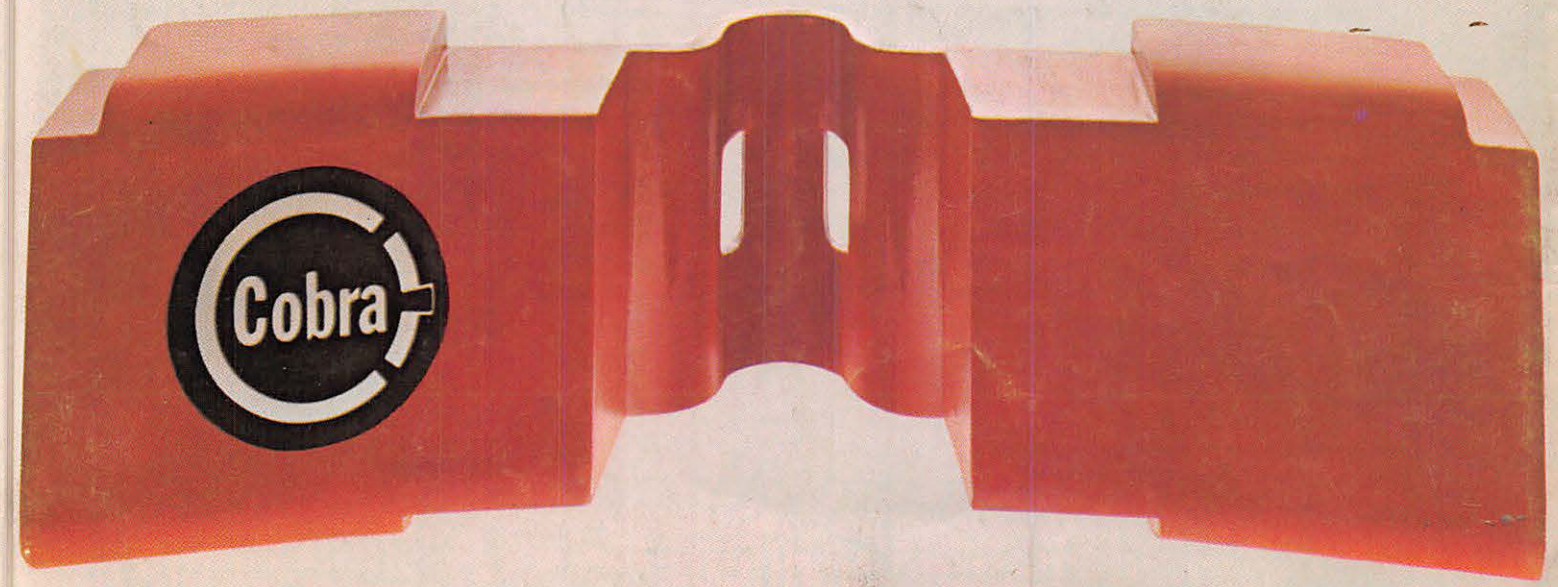
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